

PM

PROGRAM MANAGER



DSMCAA 15TH ACQUISITION SYMPOSIUM

Compensation • Appraisals
Classification • Hiring
Training • Retention



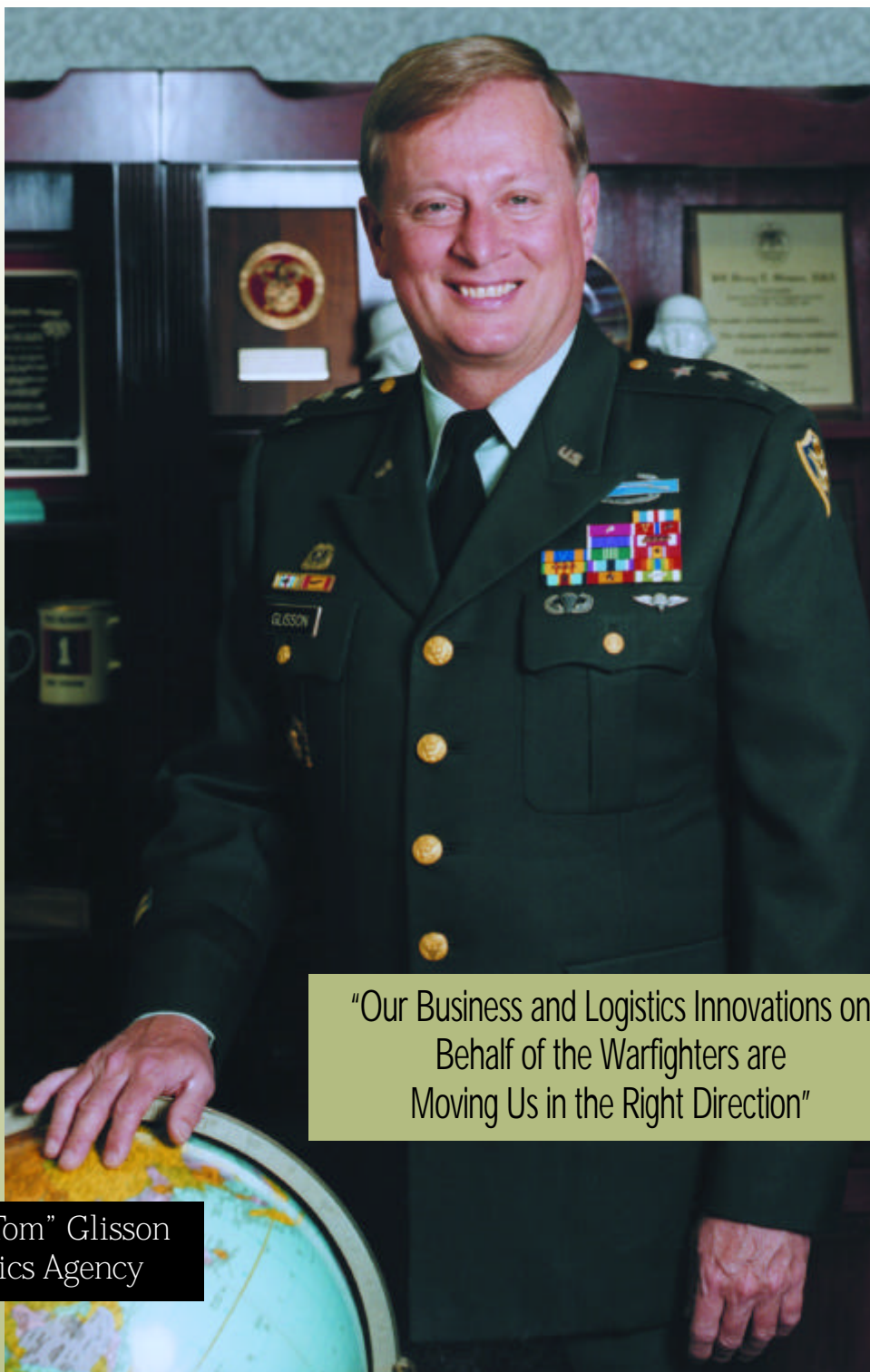
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Director, DoD Acquisition
Workforce Personnel
Demonstration Project

Process Action Team
Nearing Start-up of DoD
Acquisition Workforce
Personnel Demo

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DCMC OPERATIONS IN BOSNIA
BEST VALUE SUPPLIERS
MILSPECS & MILSTDs REFORM

Army Lt. Gen. Henry T. "Tom" Glisson
Director, Defense Logistics Agency



"Our Business and Logistics Innovations on
Behalf of the Warfighters are
Moving Us in the Right Direction"

PROGRAM MANAGER

Vol XXVII, No. 4, DSMC 145



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DLA Director Speaks to Program Manager

Army Lt. Gen. Henry T. Glisson
Spearheading a Revolution in DoD Logistics —
And Enjoying It!

"Tom" Glisson and the Defense Logistics Agency (DLA) workforce needed little acclimating to one another when he took over that agency in July 1997. After 30 years of Glisson being either a customer of DLA or part of what he calls "this extraordinary agency," both felt fairly comfortable working together.

A personable officer who laughs easily and works tirelessly, Glisson is hitting his stride in a job he's prepared for over the course of his entire career. Described by DLA Staff Director for Congressional and Public Affairs, Dan McGinty as "a superb leader who can't wait to tackle the hardest problems; he cuts quickly to the crux of the toughest issues," Glisson and his 46,000-employee workforce face an abundance of current and future logistics challenges worldwide.

His tenure at DLA just happens to coincide with the biggest shake-up in government military affairs and DoD acquisition and logistics practices that the nation has ever seen. Secretary of Defense William S. Cohen coined the phrase, "Revolution in DoD Logistics," and Glisson and his staff are making it happen.

ARMY LT. GEN. HENRY T. GLISSON, DIRECTOR, DEFENSE LOGISTICS AGENCY, IS INTERVIEWED IN HIS FORT BELVOIR, VA., OFFICE BY COLLIE J. JOHNSON, MANAGING EDITOR, PROGRAM MANAGER MAGAZINE.



And they've made a lot of progress it would seem. Glisson readily acknowledges he has a workforce of "dedicated, selfless professionals." In fact, his pride in DLA's talented workforce pervades the interview.

Program Manager, in this issue attempts to present our readers a glimpse into the leadership policies of a man who runs, literally the world's largest mercantile.

Q Can you tell us a little about your background and the qualifications and types of jobs that led to your appointment as the Director of the Defense Logistics Agency?

A For a career logistician, this is as good as it gets! From my commissioning as a second lieutenant in the Quartermaster Corps, each of my military as-

LT. GEN. HENRY T. GLISSON, U.S. ARMY

Director, Defense Logistics Agency

LT. Gen. Henry T. Glisson became the 13th Director of the Defense Logistics Agency on July 25, 1997.

The Defense Logistics Agency, headquartered at Fort Belvoir, Va., is responsible for providing the Army, Navy, Air Force, Marine Corps, and other federal agencies with a variety of logistics, acquisition, and technical services in peace and war.

These services include inventory management, procurement, warehousing, and distribution of spare parts, food, clothing, medical supplies, and fuel; administration of all military service weapon systems acquisition contracts; and reutilization of surplus military materiel. This worldwide mission is performed by approximately 46,000 civilian and military personnel around the world.

Glisson was commissioned a second lieutenant, Quartermaster Corps, in 1966 through the Reserve Officer Training Corps program at North Georgia College, where he also earned his Bachelor of Science Degree in Psychology. He received his Master's Degree in Education from Pepperdine University in Calif. His military educational background includes the Quartermaster Officer Basic and Advanced Courses, the Command and General Staff College, and the Army War College.

Selected as a Regular Army Officer in 1967, and detailed to the Infantry for 18 months, his early years included assignment as a Platoon Leader for the 549th Quartermaster Company (Air Delivery), and Aide-de-Camp for the Commanding General, U.S. Army, Japan; Advisor in the U.S. Military Assistance Command, Vietnam; and S4 (Logistics) and Commander, Headquarters Company, 2nd Battalion, 5th Infantry; Commander, Company C, 425th Support Battalion; Commander, 25th Supply and Transport Battalion; Executive Officer/S3, 25th Supply and Transport Battalion; and Assistant Chief of Staff, G4 (Supply), 25th Infantry Division, Hawaii.

From 1974 to 1977, Glisson was the Officer-in-Charge of the Cadet Mess, U.S. Military Academy, West Point, N.Y. From 1978 to 1982, he served as the S3, Division Support Command; Executive Officer, 701st Maintenance Battalion; and Commander, Materiel Management Center, 1st Infantry Division, Fort Riley, Kan. His next assignment was Commander, 87th Maintenance Battalion, 7th Support Group, U.S. Army, Europe. He served as Chief, Quartermaster Branch, U.S. Army Military Personnel Command in Alexandria, Va., from 1985 to 1987.

He was assigned to the Pentagon from 1987 to 1989 where he served first as Chief, Readiness Team, and then Chief, Troop Support Division, Office of the Deputy Chief of Staff for Logistics, Washington, D.C.

In 1989 he became Commander, Division Support Command, 4th Infantry Division, Fort Carson, Colo. He returned to the Pentagon in 1991, serving as the Executive Officer and Special Assistant to the Deputy Chief of Staff for Logistics; and then as Deputy Director, Directorate for Plans and Operations, Office of the Deputy Chief of Staff for Logistics.

In 1993 Glisson became the Commander, Defense Personnel Support Center, Defense Logistics Agency. In 1994, he was assigned as Commander, U.S. Army Soldier Systems Command, Natick, Mass. In 1996, he became the 44th Quartermaster General and Commandant of the U.S. Army Quartermaster Center and School in Fort Lee, Va., where he served until assuming his current position.

His decorations include the Defense Superior Service Medal, the Legion of Merit with Five Oak Leaf Clusters, the Bronze Star with "V" Device, the Bronze Star, the Purple Heart, the Meritorious Service Medal with Four Oak Leaf Clusters, the Army Commendation Medal, the Air Medal, the Combat Infantryman Badge, the Parachutist Badge, the Parachute Rigger Badge, and the Army Staff Identification Badge.

Glisson and his wife, Sherry, have one daughter, Shannon.



signments has built upon the previous one to help me learn the many aspects of military logistics – from retail to wholesale.

Several assignments have had a particular impact. My 18 months detailed to the Infantry in combat, for example, gave me the perspective of the soldier in the field. My assignments in operational supply, maintenance, and

materiel management gave me a "users or customer" perspective. My staff assignments in the Pentagon gave me the "big picture" of the role of logistics in the defense of the United States. Overseas assignments in Japan, Vietnam, and Europe gave me a global view of how we interact with our allies and the unique challenges of supporting warfighting around the world. Lastly, an assignment with the Defense Personnel Support Center, DLA gave me a joint perspective.

So after 30 years of being either a customer of DLA or part of this extraordinary agency, I feel fairly comfortable to serve as its director.

Q *Did you find that DLA had changed considerably since you served as Commander of DLA's Defense Personnel Support Center three years ago? Any surprises?*

A Yes and no. I had become a real fan of DLA and its outstanding workforce during my assignment in the Defense Personnel Support Center. I had never seen such an innovative, customer-focused organization; dedicated, selfless professionals who truly did everything they could to support our nation's armed forces. Plus, they were so adept at dealing with change and consistently searched for ways to provide better, faster, cheaper support. I found that none of that had changed.

With the Quadrennial Defense Review, Revolution in Military Affairs, Revolution in Business Affairs and Military Logistics, Defense Reform Initiative Report, Joint Vision 2010, and a host of other initiatives – all aimed at meeting the challenges that we face today – I found that the amount and pace of change had increased dramatically.

The implications for DLA were clear. Doing logistics the old way would not meet the needs of a 21st century armed forces. The nature of warfare, the operational environment, the armed forces were changing, and DLA had to change to keep pace – and it has.



Glisson on his July 1997 assignment as Director, DLA: "For a career logistician, this is as good as it gets...After 30 years of being either a customer of DLA or part of this extraordinary agency, I feel fairly comfortable to serve as its Director."

This DLA is "not your father's Oldsmobile." It is a dramatically different organization than I left three years ago. DLA has continued to re-engineer its organization and business processes and embrace information technology. It is much leaner, more agile and flexible, and more focused on warfighters and partnerships with industry. It has become an integral part of the warfighting team – forward stationed today in Bosnia and on the CINCs' staffs, and part of the Services' warfighting team at installations around the world.

Lastly, DLA has continued to be the catalyst for change in logistics in DoD. Initiatives like Prime Vendor, Virtual Prime Vendor, Electronic Catalogs, Electronic Mall – all originated in DLA. It is a fast paced, exciting, dynamic environment. So while the great workforce hasn't changed, DLA's approach to supporting and sustaining warfighters has changed dramatically.

Q *You were given one of the toughest jobs in the government – to reform the DoD logistics system. With 46,000 civilian and military staff at over 500 sites, processing more than 30 million annual distribution actions, administering over \$900 billion of DoD and other agency contracts, and managing over four million consumable items, how did you approach this monumental undertaking?*

A First, as I stated earlier, I knew that I had the best workforce in the Department of Defense! I am blessed with absolutely outstanding field organizations and commanders, and three exceptional major subordinate commanders: Air Force Maj. Gen. Tim Malishenko, Commander of the Defense Contract Management Command; Navy Rear Adm. Dave Keller, Commander of the Defense Logistics Support Command; and Pat White, Acting Director of the Defense Automated Printing Service. They have ensured that we have good, solid processes and business plans in place.

We also have great leadership and support from my boss, Dr. Jacques Gansler, Under Secretary of Defense (Acquisition & Technology), and the entire OSD staff. I couldn't ask for better tools with which to lead DLA.

My job was to provide the vision for the agency – developing a strategic plan to take the agency from today into the next millennium. That has been done with the publication of our 1998 Strategic Plan. Given strong leadership, support, and an extraordinary workforce, my job is easy. I set challenging goals with clear measures, then stand back and let the people perform.

Q *What do you see as the biggest challenge facing DoD in the area of logistics reform?*

A The answer is simple. We will not be able to achieve a Revolution in Military Affairs unless there is a complementary Revolution in DoD Logistics. The United States' ability to modernize our armed forces so they are ready for the changing nature of warfare and the operational environment in the 21st century depends heavily on us. We simply must leverage information and the commercial marketplace, and adopt more effective, efficient ways to support and sustain our armed forces in peace and war.

What we do *will not change*. How we do it and what we do it with *will change*. If we do not, there will not be enough funding to modernize our forces, and we will be unable to provide required logistical support on the modern battlefield. It is a mandate for change and we must all have a sense of urgency to reach this goal.

Q *In 1961, DLA's mission was providing centralized management of consumable items of supply, the federal supply catalog, the DoD industrial plant equipment reserve, and the surplus disposal program on behalf of all the military services. In 1998, DLA is a logistics combat support agency with broader and more complex DoD and joint missions, political mandates, military operations and emergency relief. How are you managing this new mission?*

A Our role has changed, and DLA has reorganized itself to accommodate this change. I think our vision statement says it best:

America's logistics combat support agency – the warfighter's choice for integrated life cycle solutions through teamwork and partnership. One team – one focus, around the clock, around the world.

We want to be the logistics provider of choice for U.S. servicemen and

women, wherever and whenever they need us, anywhere in the world. We want to be an integral part of the warfighting team.

When you list all the operations U.S. forces have been involved in over the past few years, from hostile to humanitarian operations, it vividly illustrates that our servicemen and women are called to every corner of the globe. We have found that the best way to optimally support U.S. forces is to step up to the front lines with them, wherever those front lines happen to be. DLA now has multifunctional Contingency Support Teams (DCST) that give us a forward presence, side-by-side with America's deployed troops. And that means quicker and more effective logistics support.

Such support can include everything from arranging for contingency contracting to in-country fuel support for multinational missions to setting up an excess property disposal function at the mission site or providing administration of support and logistics contracts.

Two DLA activities – DLA Europe and DLA Pacific – provide in-theater logistics planning and support directly to the Commander in Chief, European Command, and Commander in Chief, Pacific Command, as well as their components and field organizations in their overseas theaters.

We are also increasing our number of Customer Support Representatives in the field and using customer-focused metrics to improve weapons systems support; and are reorganizing our supply centers along a weapons and personnel support focus that better aligns us with our customers. The Defense Supply Center Columbus will be devoted to supplying items for land and sea weapons systems. The Defense Supply Center Richmond will provide items for air, aviation, and space support. The Defense Supply Center Philadelphia will provide troop support and general commodity items. The Defense Energy Support Center will provide all forms of facility and mobility energy, and the Defense Contract Management Dis-

tricts provide a single face to industry for DoD contracts.

The DoD Combat Support Agency Review Team recently evaluated this global support role. It was very gratifying to have them report that DLA's operations are effectively supporting our warfighting customers. I think this endorsement shows that our business and logistics innovations on behalf of the warfighters are moving us in the right direction.

Q *Has Congress recognized your vastly increased responsibilities and funded your agency accordingly?*

A Overall funding has generally remained constant despite increased missions. This has not been a problem; however, DLA has a history of absorbing new missions with no additional resources and funding better, faster, cheaper ways to perform them. Our innovative, creative, extraordinary workforce makes it happen. So funding is not currently a problem.

Q *What new logistics technologies and tools are you putting into your business practices?*

A Prime Vendor business arrangements, corporate contracts, electronic catalogs, and our Electronic Mall, or E-Mall, the Single Process Initiative, and early involvement by contract administration are just a few examples. Each combines emerging technology and best business practices to give purchasing power, choice of product, and on-scene support directly to our customers. Our role is changing from managing supplies to managing the business arrangements that will give our customers the best American business has to offer.

Another area we are concentrating heavily on is better integration of logistics support throughout the supply chain. For many years, DLA was a wholesaler whose support mission was essentially

one discrete link in a long chain to the ultimate customer. As the military services continue to downsize, and as we continue to take on more logistics support missions, we are taking on a bigger role in the overall logistics support. We need to make sure we take care of a couple of areas:

Making decisions that work well across the entire supply chain, which means from the first time a requirement is recognized until the needed items are delivered into the hands of the soldier in the foxhole. That also means we are getting involved up-front when weapons systems are first designed and produced to determine how best to provide logistics support throughout the life cycle of the weapon. It also means having our experts assist program managers in designing their acquisition strategies so there is less risk in bringing programs in on time, at the right cost, and performing as required.

In our internal operations we're partnering with the Defense Advanced Research Projects Agency to implement the latest in distributed computer systems. The most notable example is the DLA Electronic Commerce Mall, the E-Mall I mentioned earlier. Distributed systems architecture is the foundation of the E-Mall, which empowers DLA customers to go to one Internet site to search, locate, compare, and order material. They can order those items from DLA stocks, other Defense Department or Federal Agency electronic "stores," or directly from vendors via electronic catalogs. This technology arms customers with near real-time visibility into public and private sector inventory levels and lead-times. It also gives them the opportunity to select the ordering and payment method that suits them best: traditional MILSTRIP or the convenience of an IMPAC credit card.

Our Combat Rations Manufacturing Science and Technology Program is working on higher-quality, more cost-effective operational rations. We are working with Rutgers University and the military rations producers on new systems that will increase the variety of



Glisson on
managing
DLA: "Because I'm
blessed with strong
leadership support and
an extraordinary
workforce, my job is
easy. I set challenging
goals with clear
measures, then stand
back and let the people
perform."

meals provided, add more whole-meat items, and make sure everything leaving the plant is of the highest quality.

Our Apparel Research Network is integrating the supply chain from the Marine Corps Recruit Induction Centers (RIC) back to the manufacturer. This has allowed the Marines to make significant reductions in inventory held at the RIC

while improving the fill rate. We have demonstrated that an automated, whole-body scanner can identify the clothing size of a recruit, leading to a better fit and less need to stockpile huge amounts of uniforms.

Let me give you an example of how technology can help the warfighter on the battlefield. The surge caused by the rapid deployment of more than 500,000 troops during Operation Desert Storm caused thousands of seavan containers and air pallets to stack up at in-theater ports. We couldn't always tell what was in those containers. We recognized that a better system was needed to provide instant access to information regarding what we had on hand, so we helped develop an Automated Manifest System (AMS).

AMS, which uses a laser optical memory card (OMC) as the data storage media, provides detailed information on the contents of each multipack and container. The general concept is that the card will accompany the shipment to the final destination and provide a ready source of computerized information on the contents, allowing us to immediately search and retrieve high-priority items.

DLA has recently been designated as the DoD Lead Organization for implementing the Automatic Information Technology Program, or AIT. This is a follow-on approach that includes such devices as the OMC, radio frequency identification tags, smart cards, and barcodes like you see in the grocery store. We are testing these AIT devices in the European Command theater for air, seavan, unit moves, and ammunition movements. Eventually, AIT will provide information to the Joint Total Asset Visibility System we operate, helping us track, trace, and assure accountability of materiel for our military service customers around the world.

One final tool I want to discuss involves a very successful partnership with private industry to leverage transportation in lieu of inventory investment: Premium Service. In partnership with Federal Express, DLA's customers can receive

direct, door-to-door delivery of select mission-critical or readiness-driver items in 24 to 48 hours, seven days a week.

DLA and the Services have positioned items at a 120,000-square-foot Premium Service facility at a FedEx hub, thus taking advantage of the company's extensive transportation system. Orders for continental U.S. customers are delivered within 24 hours after the Premium Service warehouse receives the requisition. Requisitions for overseas customers are delivered to an in-country airport within 48 hours. The warehouse currently houses more than 5,000 specific items for the Army, Navy, Air Force, and DLA activities. Requisitioners can find out exactly where their items are just by checking the FedEx tracking system on the Internet.

Q

Please tell us about your latest responsibility – as head of business developments for the new JECPO. What is the JECPO all about?

A

On June 5, 1998, the Secretary of Defense officially chartered a newly formed Joint Electronic Commerce Program Office (JECPO). The office is organized under the directors of the Defense Logistics Agency and the Defense Information Systems Agency and is responsible for accelerating the application of electronic business practices and associated information technologies to the way we buy and pay for the supplies the military needs. Our goal is to improve DoD acquisition processes and supporting sustainment life cycle practices.

DLA will take the lead on business developments. We will coordinate the full business cycle requirements and functional integration; identify best business



practices; handle functional industry outreach; and integrate Continuous Acquisition Life Cycle Support to DoD's business processes.

My partner, Army Lt. Gen. David Kelley, the Director of DISA, will oversee technical developments, providing cross-functional integration, technical architecture, and systems engineering solutions; setting up enterprise licensing approaches; and testing the infrastructure.

DLA's Office of Congressional and Public Affairs recently jump-started its bimonthly periodical, *Dimensions*. Glisson lauds it as an ideal forum for communicating information on policies, trends, events, and current thinking affecting the Defense Logistics Agency worldwide.

This is a true "joint partnership" involving all of the Services, and we hope to achieve real breakthroughs in how we do business in the months and years ahead.

Q

How has electronic commerce empowered DLA?

A

It has improved communication and procurement processes throughout the supply chain. Potential vendors can now view solicitations on-line and bid on them electronically; contractors can receive payment electronically; customers can order on-line from contracts established by DLA, and then follow up on the status of their shipments.

According to the Deputy Secretary of Defense, the adoption of electronic commerce and its related technologies, such as the Internet and World Wide Web to perform business operations, will be heralded as one of the major revolutionary logistics changes of this century. From the foxhole or deck of a ship, airfield, maintenance depot, or any place in the world that a soldier, sailor, airman, or Marine serves today a customer with access to a computer and credit card will be able to shop comparatively for products; make a selection based on quality,

price, and availability; place the order directly with a supplier without having to go to a procurement office; and pay for it with an IMPAC card. This puts the buying options in the hands of the customers who actually need the products.

Get on the Web at <http://www.emall.dla.mil> and you'll see where we are headed. But there is a lot more coming.

In the future, we will be able to use electronic commerce to keep better visibility over stock and production levels, from the factory and vendor side, the DLA depot side, and the military services' retail side. This comprehensive view will aid war planners and logisticians at all levels in contingency planning and forecasting.

I am convinced that we are only now beginning to tap the immense power of electronic commerce. That's why one of our major goals in the DLA Strategic Plan is to "Rapidly exploit technology to provide agile, responsive, interoperable solutions." An objective of that goal is to achieve 25 percent of sales through the electronic marketplace by the end of FY 2002.

Q *From what you've told us so far, logistics has changed from a supply-based system relying on large stockpiles, and is quickly becoming a Web-enabled, distribution-based system exploiting improvements in commercial information systems to gain total asset visibility and management of the entire supply chain. What does this mean to the clerk sitting at a desk in a tent in Bosnia?*

A Well, if you are talking about a supply clerk who is facing a long list of needed items to keep his troops supported, it probably sounds like so much gobbledegook. His concern is that he gets what he needs, when he needs it, and never mind the business methodology that gets it to him. But our new systems will give him the tools to access the supply system via the World Wide Web.

He'll have electronic catalogs to do comparative shopping based on price, quality, delivery modes. He'll push a button



Glisson on "Life After DLA": "I would hope that I have provided the vision, ethos, leadership and resources necessary to ensure DLA remains relevant; an integral part of the warfighting team; is prepared to continue its support of America's armed forces in a new millennium; and that we served as the catalyst for a "Revolution in DoD Logistics."

on his keyboard to make a selection and pay for it with his IMPAC card. The orders will go directly to the supply source, who will be paid electronically. All in a paperless environment and without having to go through several systems or offices. Better, faster, cheaper!

If he doesn't understand this and needs assistance, that's why we deploy DCSTs now with American forces. Our own personnel are on the ground with the warfighter, to show him how to operate the systems or with the reach-back capability into the DLA logistics system to ensure responsive support.

We also operate our Emergency Supply Operations Centers (ESOC) to provide around-the-clock support to our deployed forces. They are a link to the thousands of dedicated employees around the world who make sure that clerk gets exactly what is needed — and on time.

That's DLA's foremost core competency. In Desert Storm we provided \$2.9 billion worth of food, clothing, medicines, medical items and repair parts, earning the Joint Meritorious Unit Award for our support.

Q *As DLA becomes a more civilianized support operation, contingency support teams, customer service representatives, and liaison officers will be employed more often, further into the area of operations, and become more of an integral part of the warfighting team. How have DLA civilians fared "closer to the fray"?*

A They have done very well. Use of civilians by DLA in forward deployed locations is not new. They have been part of our DLA Contingency Support Teams for the past several years.

DCSTs deploy forward into a contingency Joint Operations Area and establish themselves as the focal point for all DLA support to the Unified Command or Joint Task Force Commander. In terms of the civilian members of our DCSTs, we ensure that everybody assigned to a DCST position is technically skilled and

receives individual and team training in order to perform the mission. This training includes the basics of DCST operations, DLA wholesale to Service retail system interface, automated tracking systems, computer systems, communication requirements, hazardous materiel management, quality assurance, and other functional areas that may be needed in theater.

We also provide individual training to prepare the team members to live, function, and operate in the environment to which they are deployed. It includes such training as wear and care of uniforms and personal equipment, chemical protection, individual and force protection, and first aid training.

Finally, we also do training to prepare them to function smoothly and efficiently when it comes to staff procedures, reporting, security and force protection, and the use and maintenance of team equipment.

Another way we help the DCSTs to prepare is to employ members in certain military exercises. This participation, coupled with intensive functional, individual, and team training, ensures our civilians are prepared for the mission of any DCST.

Lastly, we integrate them into the support force, where they exemplify our vision of "one team, one focus."

Q *DLA wants to be a "single face to industry for administration of DoD contracts." What does that encompass? Are you succeeding?*

A In the late 1980s, the decision was made to consolidate the Army, Navy, Air Force, and DLA plant representative offices with the Defense Contract Administration Services into the Defense Contract Management Command (DCMC). A primary motivation for this decision was to establish one "standard" way of doing business. Our internal emphasis on "one team, one focus" is about achieving that "standard" so that industry doesn't have to cope with multiple procedures, mul-



Glisson on DSMC:
 "[DSMC] is an essential, value-added institution upon which our future success in logistics depends. I strongly endorse attendance by all as we build our 21st century workforce."

iple sets of policies, and so on, each being unique to a specific agency or department. One standard set of procedures and policies lowers costs for both government and industry.

In connection with its new role, DCMC has taken the lead to target specific DoD acquisition processes that have historically inhibited the adoption of commercial practices and contributed to extended cycle times, higher costs, and excessive oversight.

Some of these reform initiatives include the Single Process Initiative, which facilitates the consolidation of existing multiple DoD and commercial processes into a single common process to be used

across a contractor's entire facility or even corporation-wide; the Acquisition Pollution Prevention Initiative to eliminate or reduce the use of hazardous materials in the production of DoD items; Earned Value Management System, a method for proactively managing both costs and schedule for DoD programs; and PROCAS, which improves contractor production processes through application of total quality management by integrated product teams comprised of contractor and government representatives. They are all making a real difference!

Q *Could we briefly discuss three initiatives that are having a profound impact on the way DLA does business:*

- Paperless Contracting by Year 2000
- Reducing Government Property in the Possession of Contractors
- Reducing Government Source Inspection

A Paperless Contracting by the Year 2000. Anybody working around Government contracting knows the job is very paper-intensive. The need to fill in forms and document actions complicates our processes and slows down our people. If we can cut down or eliminate the need for so much paper, we will simply support our customers better. We are working on behalf of the entire Defense Department on a number of projects, and are working to a January 1, 2000, target date for fully implementing paperless contracting. There are four particular items we are concentrating on right now.

The first is progress payments to contractors. We're paying over 40 percent of all progress payment dollars electronically now, which is up substantially from what we did last year. Overall, we have paid \$3.2 billion in progress payments electronically since October 1997. It's a lot faster — two to four days versus 10 to 14 days. That's good for contractors because it helps their cash flow. But, it's also good for us because it is a much more efficient way of doing business.

Our overall objective is to pay 90 percent of the dollars and 70 percent of transactions electronically.

The second project is coming up with a way to modify contracts in a paperless way. There's a high potential return on investment there because, for example, DCMC alone issued about 97,000 contract modifications last year. DCMC is already posting over 90 percent of its modifications on the World Wide Web. This requires an awful lot of work by a lot of contracting offices to make this successful, but there is great payoff in savings of time and paper.

Thirdly, when we receive and accept a product for the government, our people execute a DD Form 250. We do this almost 1.2 million times a year. That's a lot of paper! So we're looking at re-engineering the DD 250 process. The initiative to improve this area evolves from a Defense Reform Initiative Directive (DRID) which calls for re-engineering this process.

That same DRID also calls for our fourth item, re-engineering the paper-intensive contract close-out process. We closed out almost 370,000 contracts last year, and have roughly 128,000 contracts in close-out status now. We can re-engineer, streamline, and simplify the paperwork associated with them to get the job done quicker and better.

Long-term, paperless contracting is about not only doing current processes paperless, but it is also about re-engineering and linking all business processes to take full advantage of what we can do with new information technology

Reducing Government Property in the Possession of Contractors. DoD's goal is to dispose of about \$7 billion worth of excess property currently in the hands of contractors by January 2000. We are well on our way — about \$1 billion had been disposed of through the end of March 1998. We've introduced the kind of improvements that will accelerate the disposition process, thus lowering contractor overhead costs and DLA management costs. DLA has also funded a

new automated (paperless) disposition system that will save time for defense contractors and us.

Reducing Government Source Inspection. We are making great progress in reassessing the need for Government Source Inspection (GSI). Out of about 4 million items we buy, there are about 1.8 million items that are coded source inspection. Recently, our Defense Supply Center Philadelphia removed GSI on 95 percent of their medical items and our Supply Center Columbus removed GSI on some 44,000 national stock numbers.

In addition, systems changes are being worked to reduce the amount of automatic requirement for GSI on small-dollar, low-risk commercial purchases. This is all part of our re-engineering the way we do business. We are also developing alternative methods of assuring quality. Industry tries to select responsible suppliers up-front with the goal of "Dock to Stock," i.e., no inspection at either the source or destination at all. DoD, likewise, needs to move to managing suppliers not supplies. DCMC has a team developing the approach DoD would need to adopt to accomplish this.

Your agency appears to have taken as its theme "The right advice to get the right item, at the right price, at the right time." Where do you go for the right advice?

The short and best answer is simple: I ask the warfighter. Whenever I have one of our commands brief me on a new proposed product or service, I always give the concept one simple litmus test: Is this something our troops need to get their jobs done...better, faster, and cheaper? If the idea gets past this hurdle, I listen. If not, back to square one. Frankly, it's the only way DLA can do the job our customers need us to do: providing them world-class logistics support, around the world. How we do that shapes every part of our daily operations.

What mark do you want your leadership of DLA to leave? How do you want to be

remembered when your title becomes "former Director, DLA"?

I would hope that I have provided the vision, ethos, leadership, and resources necessary to ensure DLA remains relevant; an integral part of the warfighting team; is prepared to continue its support of America's armed forces in a new millennium; and that we served as the catalyst for a Revolution in DoD Logistics.

General Glisson, one last question. You have been a consistent supporter of the Defense Systems Management College, its activities and programs. Is there a specific message you'd like to leave with our students, or the DoD logistics workforce at large?

We are at a critical juncture in DoD. There can't be a Revolution in Military Affairs unless we have a Revolution in DoD Logistics. One of the tenets of this Revolution is a mandate to reduce total life cycle cost — most of which occur prior to the time a weapons system is actually fielded.

The biggest challenge we face is how to understand and improve the acquisition management process so we can reduce these costs and provide additional funding for force modernization. It also allows us the opportunity to improve weapons systems designs to reduce operating, maintenance, and logistical support costs.

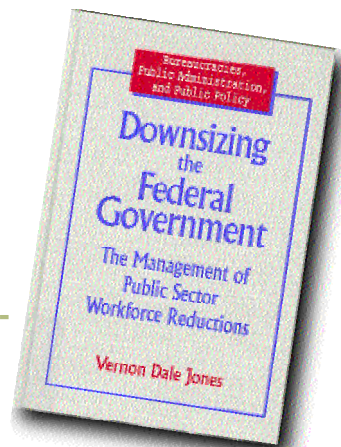
DSMC provides this essential training and the tools to enable its graduates to achieve the Revolution in DoD Logistics. It is an essential, value-added institution upon which our future success in logistics depends. I strongly endorse attendance by all as we build our 21st century workforce.

Editor's Note: Wherever masculine pronouns appear throughout the interview, other than with obvious reference to named individuals, they were spoken in the generic sense.

Air Force Academy Professor (Author) Visits DSMC for Book Presentation

Downsizing the Federal Government: The Management of Public Sector Workforce Reductions

JOAN L. SABLE • CALVIN BROWN



On Monday, July 20, Air Force Lt. Col. Vernon D. Jones, Associate Professor, U.S. Air Force Academy, presented a copy of his book, *Downsizing the Federal Government: The Management of Public Sector Workforce Reductions*, to Navy Rear Adm. "Lenn" Vincent, DSMC Commandant. Jones presented his book in a ceremony hosted by the DSMC David D. Acker Library with DSMC faculty and staff members in attendance. During the ceremony, those attending also had the opportunity to hear comments from the author concerning his research.

In support of DSMC's research mission, DSMC and the U.S. Air Force Academy (USAFA) entered into a Memorandum of Agreement (MOA) in October 1989. This agreement established a joint effort by DSMC and the faculty of the USAFA to encourage the conduct and dissemination of defense acquisition-related research to enhance the education and training of both USAFA cadets and the DoD acquisition workforce. "It is under this MOA," said Vincent, "that DSMC was proud to sponsor, in part, Lieutenant Colonel Jones' research effort."

Jones is a graduate of the USAFA. He received his M.B.A. in Management from Wright State University, an M.A. in Public Policy from The George Washington University and a doctorate in Public Administration from Syracuse University. In addition, Jones is a graduate of the DSMC Program Management Course (PMC-87).

Sable is a Research Associate and Brown, the Associate Dean for Research, respectively in the Research, Consulting and Information Division, DSMC.

For those who may be interested in reading Jones' book, a brief synopsis follows:

The main focus of downsizing has shifted from the public to the private sector. The cutbacks began in the Department of Defense. Now, the goal is a federal civilian workforce reduction of 12 percent by the year 2000. This pioneering study looks at the management of workforce reductions in the public sector both in theory and in practice. Three case studies – of the Defense Logistics Agency, the Bureau of Reclamation, and the Food and Drug Administration – illustrate the organizational, managerial, and human dimensions of attempting to improve performance

with reduced resources. The author draws on extensive interviews with senior executives and middle managers in the three agencies; the General Accounting Office; the Office of Personnel Management and the National Performance Review; the Senior Executives Association and the Federal Managers Association; and diverse scholars and researchers.

Helen Haltzel, Director of DSMC's Acker Library, notes that Jones' book will be available through the library. Others may obtain Jones' book by contacting M.E. Sharpe, Inc., 80 Business Park Drive, Armonk, N.Y. 10504; or by faxing a request to M.E. Sharpe, Inc., at (914) 273-2106.



AIR FORCE LT. COL. VERNON D. JONES, ASSOCIATE PROFESSOR, U.S. AIR FORCE ACADEMY, PRESENTS A COPY OF HIS BOOK, *Downsizing the Federal Government: The Management of Public Sector Workforce Reductions*, TO NAVY REAR ADM. "LENN" VINCENT, DSMC COMMANDANT (LEFT). ALSO RECEIVING A COPY OF JONES' BOOK IS HELEN HALTZEL, DIRECTOR, ACKER LIBRARY.

Civilian Acquisition Workforce — Listen Up!

Compensation, Appraisals, Classification, Hiring, Training, Retention — Big Changes May Be Coming Your Way!

TERRY BAIN • GREG CARUTH • COLLIE JOHNSON

A little-heralded notice recently published in the *Federal Register* is about to turn the cherished, 50-year-old General Schedule (GS) compensation system for most DoD acquisition workforce employees, literally upside down. That's not all. Read on. There's more — much more.

Personnel Demo? What's It All About?

Back in 1996, the Department of Defense, seeking ways to improve efficiency and enhance the quality and professionalism of its civilian workforce, was granted legislative authority by Congress to develop a personnel Demonstration Project for the civilian acquisition workforce. For those of you unacquainted with the term "Personnel Demonstration Project," it is a means given the Office of Personnel Management (OPM), under the authority of the Civil Service Reform Act, to conduct Demonstration Projects that experiment with new and different personnel management concepts.

Based on the outcome of the Demonstration Project, OPM can determine whether such changes in personnel policy or procedures would result in improved federal personnel management.

Last year, Congress expanded the scope of DoD's proposed Demonstra-



At a Pentagon ceremony on Friday, April 17, Project Manager Greg Giddens from the Office of the Under Secretary of Defense (Acquisition and Technology), delivered a copy of the Federal Register to former Acting Deputy Under Secretary of Defense (Acquisition Reform), Donna Richbourg and Deputy Assistant Secretary of Defense (Civilian Personnel Policy), Dr. Diane Disney. By announcing DoD's proposed Civilian Acquisition Workforce Personnel Demonstration Project in the Federal Register, Giddens and the Office of Personnel Management fulfill an obligation, by law, to publish a Notice of Intent to implement the demonstration project. Pictured from left: Pat Stewart, Civilian Personnel Management Services; Dr. James McMichael, Director, Acquisition Education, Training, and Career Development; Giddens; Richbourg; Disney; Helen Onufraak, OPM Project Manager, Demonstration Project Team; Richard Childress, Deputy Director, Acquisition Workforce Personnel Demonstration Project; Thomas Garnett, Principal Director, Office of the Deputy Assistant Secretary of Defense (Civilian Personnel Policy).

Bain is a freelance writer under contract periodically to Program Manager magazine. Caruth is the Director, Visual Arts and Press Department, Division of College Administration and Services, DSMC. Johnson is Managing Editor, Program Manager magazine, Visual Arts and Press Department, Division of College Administration and Services, DSMC.

AN INFORMAL PUBLIC HEARING ON THE ACQUISITION WORKFORCE PERSONNEL DEMONSTRATION PROJECT ON APRIL 30, AT ESSAYONS THEATER, FORT BELVOIR, VA. PANEL MEMBERS PICTURED FROM LEFT: HELEN C. ONUFRAK, OPM DEMONSTRATION PROJECT TEAM LEADER; DR. JAMES S. MCMICHAEL, DIRECTOR, ACQUISITION EDUCATION, TRAINING, AND CAREER DEVELOPMENT, ODUSD(AR); ROBERTA PETERS, PRESIDING OFFICER, FORT BELVOIR, VA., PUBLIC HEARING; DICK CHILDRESS, CO-LEADER, DoD CIVILIAN ACQUISITION WORKFORCE DEMONSTRATION PROJECT PAT, OUSD(A&T); THOMAS F. GARNETT, JR., DIRECTOR, WORKFORCE RELATIONS, OASD (CIVILIAN PERSONNEL POLICY), OUSD(P&R).

MARCIA HONGSERMEIER, SAF/AQX, TESTIFIES AT THE FORT BELVOIR PUBLIC HEARING ON APRIL 30.



KEITH CHARLES, U.S. ARMY DEPUTY DIRECTOR OF ACQUISITION CAREER MANAGEMENT, TESTIFIES AT THE FORT BELVOIR PUBLIC HEARING ON APRIL 30.



TERESA WRIGHT JOHNSON, REPRESENTING THE AMERICAN FEDERATION OF GOVERNMENT EMPLOYEES, ARMY CORPS OF ENGINEERS, TESTIFIES AT THE FORT BELVOIR PUBLIC HEARING ON APRIL 30.



GREGORY L. "GREG" GIDDENS BRIEFS CONFEREES ON THE ACQUISITION WORKFORCE PERSONNEL DEMONSTRATION PROJECT AT THE SEVENTH PEO/SYSCOM COMMANDERS CONFERENCE, APRIL 15, AT THE FORT BELVOIR NCO CLUB, FORT BELVOIR, VA. GIDDENS WAS THE FEATURED LUNCHEON SPEAKER.



RAY KELLY, SARDA, TESTIFIES AT THE FORT BELVOIR PUBLIC HEARING ON APRIL 30.



Why AFGE is Opposed to the Demonstration Project



The heart and soul of the demonstration project is a new pay and classification plan that DoD has named the "Contribution-Based Compensation and Appraisal System," or "CCAS." Of all the changes proposed by the project, the CCAS would undoubtedly have the greatest impact on the working lives of acquisition employees. AFGE has problems with other elements of the demonstration project, but our most serious concerns are directed at the CCAS.

Excerpt from a March 9, 1998, memorandum from Bobby L. Harnage, National President, American Federation of Government Employees (AFGE), to the AFGE National Executive Council, DoD AFGE Bargaining Council Presidents, and DoD AFGE Local Presidents, titled "DoD Acquisition Personnel Demonstration Project."

Briefly, the CCAS combines broadbanding — a regrouping of the current 15 GS grades into 3 broad career paths, or "bands" — with a strong pay-for-performance element. Under CCAS, an employee's contribution to organizational goals is evaluated by a supervisor and assigned a numerical score. That score is ranked against the scores of all other employees, and everyone is ultimately classified as "overcompensated," "undercompensated," or "appropriately compensated." Employees judged "overcompensated" will have their general pay increase (ECI) reduced or denied altogether. Management can award employees a salary increase based on performance — this is called a "Contribution Rating Increase" — but there is a finite pot of money for these increases and no new funding is available. In other words, larger salary increases for some employees means smaller or no increases for others.

AFGE has several objections to the CCAS pay and classification system:

1. The project provides no meaningful role for the union and puts far too much discretion over pay in the hands of management. AFGE agrees with the Defense Department that management flexibility is needed to meet the growing demand for better government performance. But we believe that flexibility without accountability invites abuse. AFGE has been a vocal and persistent critic of the government's out-dated and inflexible personnel systems, but we have always maintained strong opposition to any reforms that deny the legitimate role of labor as a workplace partner. As we see it, real accountability comes when the flexibilities given to management are carefully balanced with expanded bargaining and partnership opportunities.

Sadly, that is not the path taken by the Department in this demonstration project. Under the CCAS, managers unilaterally make all the critical decisions about pay. Pay matters

that once were covered by governmentwide laws and regulations — ensuring at least a measure of consistency and fairness — will now be controlled by local managers operating with

wide, virtually unrestricted license. What's more, the usual safeguards of the collective bargaining agreement have been scrapped by the Department. Pay decisions will be made by a management-only pay panel, and bargaining unit employees will have *no right* to challenge these determinations through grievances or arbitration.

We believe that simply turning pay authority over to local managers without any of the checks and balances provided by collective bargaining and the grievance procedure is exactly the wrong approach to personnel reform. It smacks of the spoils system of the past, and is bound to generate distrust and cynicism among the very employees whose support is critical to the project's success. AFGE is convinced that the "management knows best" approach chosen for this demonstration project is seriously misguided and doomed to fail.

2. One of the project's goals is to foster and encourage teamwork. Unfortunately, with its overemphasis on the contribution scores of individual employees and a best-to-worst ranking of employees' performance, the project crudely pits one employee against another for a limited share of money. We cannot see how teamwork, group accomplishments, or morale can flourish in this kind of every-man-for-himself environment.

3. The process for evaluating employee performance and adjusting pay under CCAS is hopelessly complicated. The CCAS system is a bewildering tangle of contribution scores, compensation charts, pay "rails," and other unwieldy pay-setting mechanisms. Managers and employees alike will struggle to make sense out of the project's maze of pay and performance requirements. We believe that the CCAS system will be poorly understood and have little credibility in the workplace.

4. Finally, we don't think that the Department could have chosen terms any worse than "overcompensated," "appropriately compensated," and "undercompensated." Not only are these terms degrading, but they send an unmistakable message that employees covered by the project are really in competition with one another and not working together for a common goal.

DoD Acquisition Personnel Demonstration Project Director Responds to Union Concerns



In a March 26, 1998, letter to Jeff Sumberg, Director of Field Services, American Federation of Government Employees (AFGE), Gregory L. Giddens, the DoD Acquisition Personnel Demonstration Project Director, responded to the concerns expressed by AFGE National President, Bobby L. Harnage. The following text is an excerpt from Giddens' letter.

I am responding to President Harnage's memorandum to various AFGE officials. In the spirit of partnership and cooperation with your officers and members, I would like to address some of your concerns on the DoD Acquisition Personnel Demonstration Project.

After many discussions with AFGE and other union partners, we realized agreement was not possible on some of the initiatives, including the Contribution-based Compensation and Appraisal System (CCAS). Nonetheless, the dialogue was most helpful. Many of labor's recommendations were adopted and contributed greatly to the project's design. We understood AFGE's concerns that annual, general pay increases would be in the CCAS pay pool. I would like, however, to clarify some points in President Harnage's memo and note changes made during the course of our work with our partners.

As to funding levels, we believe our project is more generously funded and has a larger "pot" of money for pay-outs than the other projects now underway. True, the pay pool includes monies from quality step increases, within-grade increases, certain awards and promotions, and the general pay increase. On balance, however, the aggregate funding floors are above the current system, and the funds are fenced to ensure their availability at pay-out time — a feature not found in the Government-wide system.

As to labor's role in pay matters, we believe CCAS accommodates bargaining to include union involvement at every step of the CCAS process. We understand such involvement would be essential to employee confidence in the total system. With respect to perceived inequities, we do not believe the demonstration would diminish employee protections. Rather, we had agreed

to apply the same grievance and arbitration procedures with respect to overall contribution scores under CCAS that apply to performance appraisals. Thus,

employees can grieve their scores under the negotiated grievance procedure or, if there is none, under the administrative grievance procedure. The parties could also agree to expand arbitration rights to CCAS pay decisions.

As to the project's ability to foster and promote teamwork, we in the acquisition community are making great strides in fostering teamwork among the many workforce contributors helping to make government purchases cost-effective. We would not be making changes to our personnel system that did not include team cooperation. The CCAS process is built around six required factors, one of which is "teamwork." All employees evaluated must be rated annually on the teamwork factor.

In conclusion, we hope to persuade local AFGE officials to embrace this project. We see it as a new system that can reward the vast majority of our hard-working employees in ways not otherwise available. During continued downsizing, employees will benefit from an opportunity to earn more for the additional workload being placed upon them. I hope employees and their AFGE and other labor organization leaders will elect to participate and attain these rewards. I truly believe that the DoD Acquisition Workforce Demonstration Project contains the ingredients for success.

tion Project to include support personnel who work directly with the acquisition workforce. As a result, the Under Secretary of Defense (Acquisition & Technology) and Under Secretary of Defense (Personnel & Readiness), appointed a Process Action Team (PAT) to develop the Acquisition Workforce Personnel Demonstration Project Plan.

No 100-Percent Solution

Beginning their task, the PAT, led by Gregory L. Giddens, the Acquisition Workforce Personnel Demonstration Project Director, established a project goal of designing new personnel and human resource management systems that would achieve and maintain the best workforce for the acquisition mission.

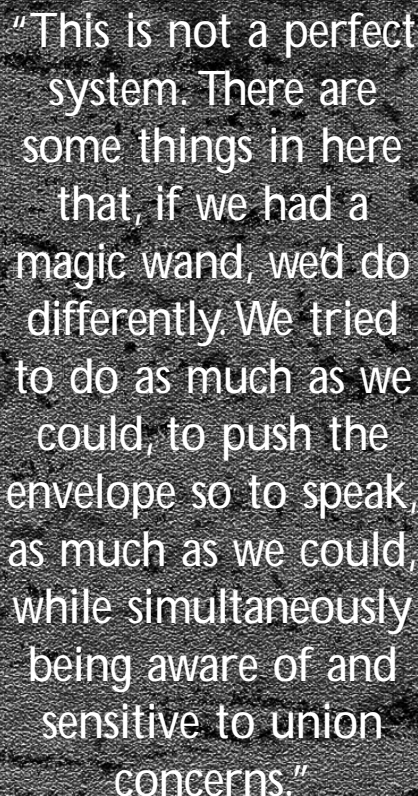
Giddens stresses that one thing was readily apparent to the team before they started their efforts: They knew they could not build something as a first Demonstration Project that would cut across all the Services and make that a 100-percent solution for anybody or everybody.

This article is the story of the team's successes, failures, and things they would like to have done, perhaps better. It also outlines the basic plan that evolved from their efforts.

Says Giddens, "We have Army, Navy, Air Force, Marines, Defense Logistics Agency, Defense Information Systems Agency, and Office of the Secretary of Defense (OSD) participation...This is not a perfect system. There are some things in here that, if we had a magic wand, we'd do differently. We tried to do as much as we could, to push the envelope so to speak, as much as we could, while simultaneously being aware of and sensitive to union concerns."

A Word About the Integrated Product Team

One of the key reasons for setting up the Demonstration Project was to create a working environment that fostered Integrated Product Team (IPT) performance. Fittingly, the Demonstration Project was designed by an IPT.



"This is not a perfect system. There are some things in here that, if we had a magic wand, we'd do differently. We tried to do as much as we could, to push the envelope so to speak, as much as we could, while simultaneously being aware of and sensitive to union concerns."

According to Giddens, "We've brought together a group of functionals and personnelists, along with personnel from OSD and OPM, to form a true IPT in every sense of the word. This is truly a team effort, and we worked on the Demonstration Project, primarily based on the input that we got from the field.

"There's about a dozen core members, and we meet once a week. We're all here in the Washington, D.C., area, and we have an expanded group to advise us, made up of people out in the field in the different Services and agencies. That group probably numbers about 60."

Richard Childress, Deputy Director, Acquisition Workforce Personnel Demonstration Project, Office of the Deputy Under Secretary of Defense (Acquisition Reform), adds, "Usually on a team effort, you'll see people representing their own Service: now they look more to the *purple*. When something is purple, that means that it is not dark Navy blue, light Navy blue, Army green, or Marine Corps

green. Purple means that there is no designation other than DoD. A purple Demonstration Project to us [PAT] means one that is not just one entity, one Service, one agency."

As an institutionalized process and one of DoD's preferred ways of doing business, an IPT improves a process that was formerly compartmentalized into different steps. For example, one group of people completes Process A, and upon completion of the process, takes the product and "throws it over the wall" to those responsible for Process B.

The Process B group, left out of the first process, get the product and typically wonder, "I'm not really sure what they meant, but I'm going to take this product and press on. If only they had done this a little differently, it would have made my life a lot easier." They complete Process B and then "throw the product over the wall" to those responsible for Process C.

In other words, each group in the process optimizes their particular function, but they may sub-optimize the total system.

An IPT breaks down those walls. Everybody looks at the process from stem to stern. Everybody knows what is coming and gets a chance to affect the outcome during the process, versus waiting until the process is completed. The IPT tries to make smart decisions in real-time, versus bouncing documents and decisions back and forth.

Compensation — The Pocketbook Issue

Giddens readily acknowledges that compensation is the issue that, understandably, draws the most interest and most comments, both positive and negative.

Many members of the Acquisition Workforce are understandably uncomfortable about changes to the familiar GS classification system. "We had a lot of people who were very wary of what we were saying," according to Childress.

"We had some who were downright hostile," Giddens adds, "but what we found

BUSINESS MANAGEMENT & TECHNICAL MANAGEMENT PROFESSIONAL			
Broadband		Normal	
Level	GS Bands	OCS Range	Salary Range
I	1 - 4	0 - 29	\$12,960 - \$23,203
II	5 - 11	22 - 66	\$19,969 - \$47,589
III	12 - 13	61 - 83	\$43,876 - \$67,827
IV	14 - 15	79 - 100	\$61,656 - \$94,287
TECHNICAL MANAGEMENT SUPPORT			
Broadband		Normal	
Level	GS Bands	OCS Range	Salary Range
I	1 - 4	0 - 29	\$12,960 - \$23,203
II	5 - 8	22 - 51	\$19,969 - \$35,610
III	9 - 11	43 - 66	\$30,257 - \$47,589
IV	12 - 13	61 - 83	\$43,876 - \$67,827
ADMINISTRATIVE SUPPORT			
Broadband		Normal	
Level	GS Bands	OCS Range	Salary Range
I	1 - 4	0 - 29	\$12,960 - \$23,203
II	5 - 7	22 - 46	\$19,969 - \$32,150
III	8 - 10	38 - 61	\$27,393 - \$43,319

FIGURE 1. OCS & Salary Ranges by Broadband Level

was, that over a period of time, we had more and more people saying 'Hey, this really makes sense. It looks like a good way to go.'

Basically, Giddens explains, the proposed changes to the way GS employees are compensated are best understood when viewed as cultural changes – from an *entitlement-based culture* to a *contribution-based culture*.

"Currently, the pay raises that we give out annually (and thereafter based on longevity) through the GS step system," says Giddens, "only have two basic requirements: be on the books and be breathing. If you meet those two requirements, you get paid more money next year than you did this year, no matter what your job is." (Promotions, Giddens is careful to point out, are different than pay raises. The promoted employee takes on a new job with new responsibilities, and thereafter receives a pay raise commensurate with the increased responsibilities.)

"What we've tried to do," explains Giddens, "is change that from an entitlement, longevity-based culture to a

contribution culture where we encourage employees to contribute. Our obligation, then is to compensate them for their contribution to the mission and for what they bring to the organization."

The current system lays out a set of performance standards, and a person's evaluation is then determined by a *job well done* – how well that person does their particular job.

The new Contribution-Based Compensation and Appraisal System (CCAS) designed by the PAT, takes that evaluation one step further: a *well-done job*. In other words, a person may have done well in their own job, but how did the job contribute to the mission of the organization as a whole?

In this regard, the system doesn't look at the job as the end. Yes, it evaluates performance, but it also looks at the contribution to the mission of each employee in the organization, taking into account a *well-done job* at increased levels of responsibility.

As the PAT travels around the nation explaining the CCAS, at this point in their

briefings they consistently hear the same question: *How are you going to make sure this thing is fair and reduce favoritism?"*

Explains Giddens, "We have a process within this contribution-based system where peer reviews are conducted through a pay pool review process; this is where you really have a chance to get some engaging dialogue between peer supervisors so that there's a good mechanism to come up with fair and consistent appraisals."

The pay pool review process is a feature the team deliberately inserted in the process to try to reduce favoritism. They're realistic, however, and realize that favoritism will not disappear entirely; they believe the pay pool review process will certainly make it much harder for supervisors to exert undeserved favoritism.

According to Giddens, CCAS will allow agencies to look at people in the organization that are overpaid, people that are underpaid, and then use these mechanisms (CCAS and the Pay Pool Review Process) to move for equity based on contribution, for each employee's compensation.

"That's something that the current system really does not link into," he notes. "And when I talk about equity, I mean *internal* equity, not *external* equity between the public and private sector. That's an entirely different issue."

To illustrate equity, Giddens uses a simple analogy: "The current system looks at employees as a slice of bread – pay raises as a big jar of peanut butter. You dip your knife in the peanut butter and you give everybody the same pay raise. That's the current system. A lot of people will present to you that that's good," Giddens says, "...That giving everyone the same pay raise is equitable; therefore, it's a good system."

"We disagree with that. We think what that does is promote sameness. It does *not* promote equity. What it does is treat everybody the same, no matter whether one person is working hard on all the

tough projects in the office; they're putting in their hours, they're getting calls on the weekend. They may be sitting next to someone who puts in (almost) their 40 hours a week. And that's it. Both people get the same raise. This situation," Giddens asserts, "is certainly not equitable. We want to try to change that."

Broadband Levels Versus GS Structure

To achieve that equity, the PAT used what they call broadband levels. These broadband levels are broken out by three career paths: business and technical professional, technical support, and administrative support. In actuality, the career paths act as placeholders to allow different breakpoints for the broadband levels (Figure 1).

For example, if a supervisor has a GS-12 employee who's in Level 3, that broadband level covers the pay range GS-12, Step 1, to GS-13, Step 10. Based on the employee's contribution, the supervisor has the leeway to adjust compensation to match the employee's overall contribution to the organization, *without the paperwork, delays, and misunderstandings with position classifiers that may arise during the promotion process.*

"Managers," according to Giddens, "can now look at what they need to support their organization, and then compensate their people for what they actually bring to the table and what they contribute to the mission."

He points out that adjusting salaries within the same broadband level is a pay adjustment action. However, that doesn't mean the promotion system is scrapped. Quite the contrary – the promotion system is still alive and well. The difference is that the employee would move, say from broadband level 2 to level 3, versus moving from GS-11 to GS-12. Such a move could be competitive or non-competitive – just as in the GS system.

A Word About the Pay Pool

The amount of money available within a pay pool is determined by the general increase and the money that would have been available under the GS system for

quality step increases, within-grade increases, performance-based awards, and promotions between grades.

The general increase is the full general pay increase, agreed to by the President and Congress, that federal employees normally receive each January. It is not tied to a cost index and is not a Cost Of Living Allowance (COLA) as some people mistakenly believe.

A Contribution Rate Increase, which is an adjustment to salary similar to the step increases under the GS system, ties the increase (as the name implies), to the employee's contribution. They're not automatically made based on the calendar.

Giddens notes that locality pay was not figured in the numbers the PAT used. All the numbers used in the Demonstration Project are base pay figures: locality pay is then figured on top of that (as in the current GS system).

Classification & Appraisal – Inextricably Linked

The current GS system is classified using the OPM classification guidance, and it's been around for a little more than 50 years. Further, the current system uses two different mechanisms: one for classifying a job and another for evaluating the employee's contribution to the job.

The PAT took a hard look at these two divergent mechanisms and asked, "Why don't we take the same factors we use to classify a job and use those to evaluate

the contribution in the job?" As a result, the PAT merged the two to form one system, and agreed on six factors¹ representing areas where people working in the acquisition environment should be making a significant contribution:

- Problem Solving
- Teamwork/Cooperation
- Customer Relations
- Leadership/Supervision
- Communication
- Resource Management

In the current system, personnel managers (classification specialists) do the classification. "We believe," says Giddens, "that the proper role for personnel in the classification process is as advisors – *advising* managers, not *deciding* their requirements."

"We would encourage people," says Giddens, "to continue to use personnel as advisors. We believe that's the proper place for their role – that they should be advising managers, not making decisions on the organization's internal grade structure."

Under the Demonstration Project, supervisors will look factor by factor at what the employee is doing and rate their contributions according to where they're at within those factor descriptions.

Explains Giddens, "Perhaps the supervisor has someone who's great on problem solving, but their teamwork and cooperation skills really are lacking. This

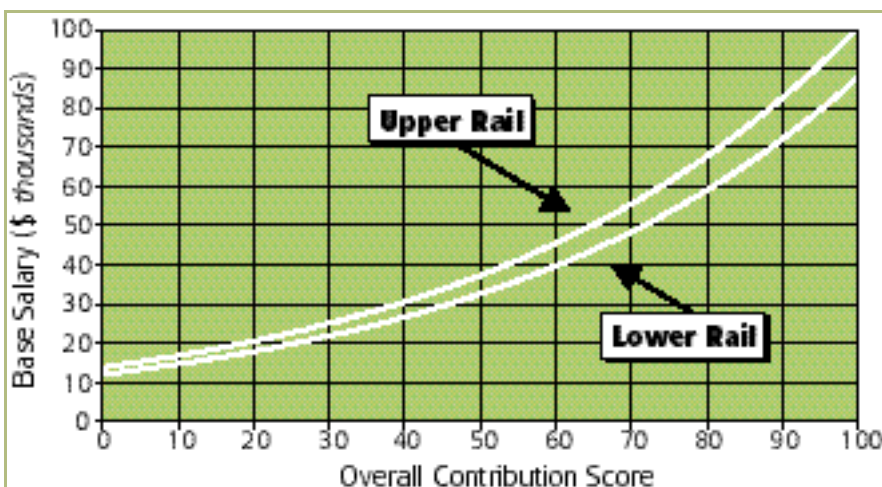


FIGURE 2. Normal Pay Range

allows you, the supervisor, to identify those strengths and weaknesses and work with the employee. Recognizing their strengths and weaknesses, the supervisor can then get a better feel for how the employee fits into the overall organization."

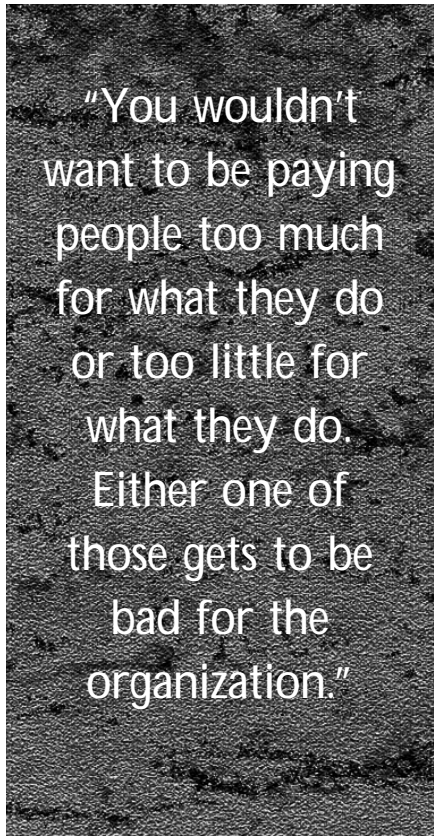
Currently, the team is trying to provide some automated software tools to simplify the factor evaluation process for supervisors. Giddens notes that the automated software tool was an idea that the Air Force implemented about March 1997. The PAT is simply piggybacking off that idea.

Once the supervisor completes the factor evaluation process, the next level is a peer review meeting, where peer managers also provide input to the evaluation process along with their second-level managers. And according to Giddens, that's really where the balancing, fairness, and consistency come in.

For example, all managers at the peer review see the names filled out in the boxes. They may see that Fred is in a box with Joe, Harry, and Sally; but Fred really performs at a level above the others, or Joe performs at a level below. What the review does is engage people in dialogue, and compel them to consider: "Do we have the people rated comparatively that are performing at, comparatively the same level?"

In other words, if a supervisor is going to exert favoritism toward an undeserving employee, this is the part of the process where that supervisor must, in essence, co-op other managers at the peer review to join in perpetuating an undeserved evaluation. "We've found," Giddens adds, "that this mechanism is a source of some assurance to employees that the process will be done fairly and consistently."

Once the supervisor and peer review group assign employees to the appropriate boxes, each employee receives a numerical rating for each of the factors, and a resulting Overall Contribution Score (Figure 2). That number is really key to the process.



Once the employee receives an Overall Contribution Score, that score is plotted on a graph that depicts salary ranges on the vertical axis and the Overall Contribution Score at the bottom of the graph across the horizontal axis. Lines on the graph represent the rails of nor-

malcy, which mean that if the employee was compensated comparable with their level of contribution, they would lie within those rails.

In Figure 3, Employee A is below the rails. That identifies to you, the supervisor, that they're being undercompensated. They're contributing at a level higher than what would be indicated by their compensation. To appropriately compensate Employee A, their salary would need to increase to the normalcy range.

Employee B is within the rails. That person is appropriately compensated. They're properly being paid for what they're contributing to the mission of the organization. "I think if you were running a company, says Giddens, "that's pretty much where you'd want your folks to be. You wouldn't want to be paying people too much for what they do or too little for what they do. Either one of those gets to be bad for the organization."

Employee C is overcompensated – the employee's level of contribution does not match their salary. So the supervisor's concern, then should be to 1) increase the employee's contribution to the organization; and 2) recognize that, right now, the employee is overcompensated.

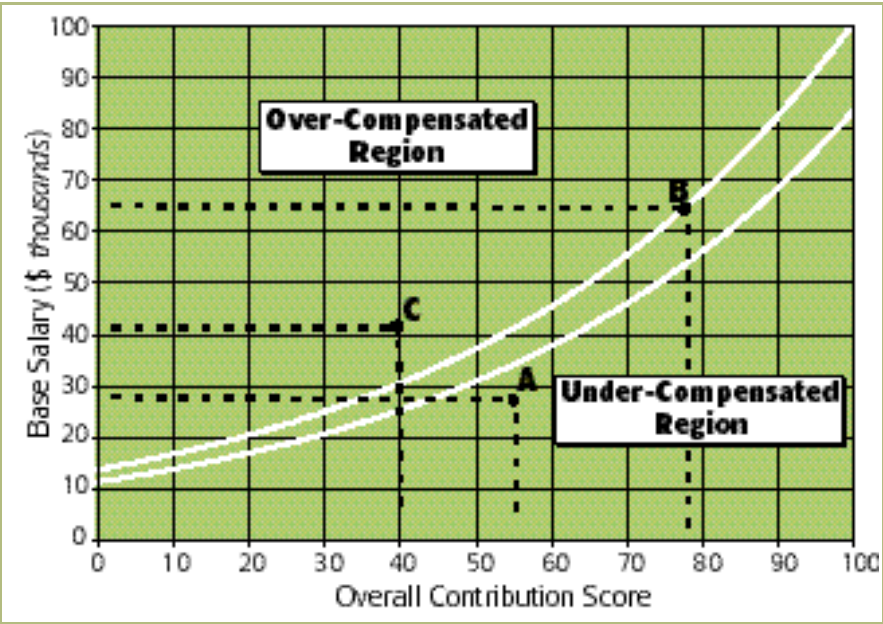


FIGURE 3. CCAS Compensation Categories

Giddens notes that Appropriately Compensated and Undercompensated ratings have limits on the maximum Contribution Rate Increase. For people within the normalcy rail, the maximum Contribution Rate Increase is 6 percent. For those below the rail, the maximum is 20 percent. Employees with Appropriately Compensated and Undercompensated ratings are also eligible for cash awards.

Late last summer, the PAT did about 20 test runs on CCAS with all the different Services and agencies. As expected, every agency had people outside the normalcy rails. "This kind of information," says Giddens, "tells us that a lot of organizations have no helpers. All they really have are senior people.

"We believe your organizations really need some helpers," he continues. "You need some journeymen, and you need some senior leaders. By plotting on a graph the variances in employees' Overall Contribution Scores, supervisors can see information about their workforce that will help them manage their organizations better."

At the conclusion of the Seventh PEO/SYSCOM Commanders Conference, conducted at the Defense Systems Management College, Fort Belvoir, Va., April 14-15, Dr. Jacques S. Gansler, Under Secretary of Defense (Acquisition and Technology), told the conferees, "I believe the [DoD] Acquisition Workforce is clearly No. 1." The redesign of the classification system is aimed at not only keeping it No. 1, but recognizing and rewarding those who make it No. 1.

Reducing Pay

On the downside [or upside, depending on a person's point of view], Giddens notes that the project also incorporates a process (as does the GS system) to reduce pay and move people to a lower broadband level. The Demonstration Project includes that process, Giddens maintains, because "Managers wanted that flexibility, even though they may infrequently use it."

As the PAT travels the country briefing the Demonstration Project, a common

Late last summer,
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complaint surfaces: "I'd like to reduce an employee's pay or [even] demote a person, but with 10 years' service, with ratings of 'Fully Successful' or 'Excellent,' I can't."

He notes that although there are ways built in the current system to withhold step increases, the federal system has been institutionalized to the point where that is rarely done. (Although OPM is still collecting the data, the number of people who do not get within-grade increases on time appears to be very close to a point zero decimal percentage.)

Under the current GS system, supervisors reduce an employee's pay through an adverse action. Under the system, if an employee is Overcompensated, supervisors can elect not to give pay increases. "You can stop the bleeding with this process," says Giddens, "if you have a person that's getting paid way above what they're contributing. You can at

least not give them a raise next year...that's at least a first step."

He notes that Overcompensated employees aren't eligible for an increase above their current level, and they aren't eligible to receive a cash award. However, Overcompensated employees can receive a part of the general increase for federal employees. (That flexibility is left with the local commanders and local installations.)

As the team travels and briefs the Demonstration Project, they often hear the question, "What's in it for the 13, Step 10 who's performing over and above? Under this system, supervisors can't increase the employee's base salary, but they can reward the employee with a cash award versus an increase in salary.

Essentially, these employees are no worse off under the Demonstration Project than they are in today's GS system where they're "capped out" at their Step 10 salary unless they receive a promotion. "This system puts money in the pot for everybody in the Demonstration Project," Giddens says, "with the expectation that everybody is going to be working to increase their contributions. Our obligation is to be able to compensate them for their contributions."

Giddens notes that today's environment of scarce dollars fosters a climate where there's no minimum to what needs to be set aside to compensate employees. It's something some organizations do after they plant trees, paint buildings, or pave parking lots.

"Decisions get hard," he says, "when money is tight. Under the Demonstration Project, we've made compensating employees, and having that money available to compensate employees, a requirement. It's in the *Federal Register*, which has the same effect as Title 5 under the law."

Agencies that participate in the Demonstration Project will be required to set aside 2.4 percent of their civilian payroll for the first year and at least 2 percent for the remaining years, and use that to

compensate employees with salary increases. "This is a positive thing for the unions," Giddens adds. "Unions see that management is really stepping up to an obligation for setting aside money to compensate employees."

Also included in the pay pool are monies set aside for awards. The same rule applies. Agencies must set aside 1.3 percent the first year for awards, and a minimum of 1 percent a year thereafter. All told, agencies must front about 3 percent of civilian salaries to support this system, and on top of that is the annual general pay increase. Says Giddens, "We worked hard to keep the general pay increase...You need to have enough money at the end that it is truly worth going through the process."

Workforce Realignment Initiatives

A constant refrain the PAT heard from civilian personnel managers across the nation was that they needed a workforce shaping tool: "The only workforce management tool we [civilian personnel managers] have now is Reduction in Force [RIF]. That's a pretty blunt instrument."

Recognizing the urgent need for just such a workforce management tool that would indeed allow civilian personnel managers to conduct fair and equitable realignments, the PAT also included provisions in the Demonstration Project that reshape the process of downsizing and realigning the workforce.

Basically, workforce shaping under the Demonstration Project will limit RIF competition to one round by essentially combining the two rounds found in the current system. Besides simplifying RIF rules, the Demonstration Project eliminates grade retention, but keeps pay retention, and is designed to reduce disruption to the workforce.

The project also de-links the current Voluntary Separation Incentive Plan (VSIP) authority from a RIF. Under the current system, for every VSIP an agency gives someone, they must abolish a slot. Essentially, the agency cannot hire back. VSIPs add little, Giddens commented,

to workforce shaping for demographics or a particular skills balance.

"All you can do with a VSIP is get people *out* the door. You can't bring anybody *in* the door. So if you're always attriting and you're never bringing anybody in, you're not going to be able to manage the workforce to meet not only today's needs, but tomorrow's needs."

The Personnel Demonstration Project changes those restrictions. It allows agencies to offer VSIPs and then hire back behind them, based on what the organization needs. An agency can offer 10 VSIPs and hire 10 people back, even if it has reached its civilian strength ceiling.

Another workforce shaping tool developed by the PAT is modification of the existing Priority Placement Program. Under the current GS system, if agencies are downsizing, they have the authority to fill vacancies with people already employed in their agencies before they go to the Priority Placement Program (stopper list). However, this authority is restricted to an agency's employees who reside in the commuting area.

Under the Personnel Demonstration Project, that area would be broadened. For example, if a supervisor at the U.S. Army Tank-Automotive Command in Warren, Mich., has vacancies and there are employees who are excess at Picatinny Arsenal, qualified to fill those vacancies, then the supervisor in Michigan can offer those people a job and move them laterally without going to the stopper list.

Under today's GS system, the people at Picatinny Arsenal would go on the stopper list, and the supervisor in Warren, Mich., would get a different stopper list. "What we're trying to do here," Giddens explains, "is allow organizations to offer those jobs to people that are already familiar with the organization, familiar with the environment and the systems, and allow them to sort that out internally. Then supervisors could still go to the stopper list to fill any remaining vacancies."

"Again, it's a workforce shaping tool. It gives the supervisor some flexibility on how to fill vacancies when an agency is reorganizing or downsizing. We [PAT] haven't been to a lot of places over the last month [May 1998] where these options are not under consideration."

Giddens said that the PAT was pleasantly surprised to gain agreement from Civilian Personnel policy makers on its workforce realignment initiatives.

Training and Sabbaticals

Under the Demonstration Project, local-level authorization allows payment for critical skills training, including degree training authority. The Defense Acquisition Workforce Improvement Act (DAWIA) authorizes degree training authority for acquisition-coded positions through 2001. Employees are encouraged to grow into new areas of expertise.

OPM's *Federal Register* notice of March 24, 1998, stated that organizations participating in the Acquisition Personnel Demonstration Project will have the authority to grant sabbaticals without application to higher levels of authority. The sabbatical provides opportunities for employees to acquire knowledge and expertise that cannot be acquired in the standard working environment. It can be used for training with industry or on-the-job work experience with public, private, or nonprofit organizations.

Sabbaticals, under the Demonstration Project, will become available to GS employees, rather than just SES employees. However, employees must have seven years of federal service; and the sabbatical must be from three to 12 months' duration, job-related, and advantageous to the employee and the organization. Of the many benefits offered by sabbaticals, this allows a full-time effort to technical or managerial research that will keep the employee and the government on the cutting edge.

According to Giddens, one of the big resource drainages under the current GS system is having somebody out of the office for three months or longer. "You don't have to send somebody four

states away to do a sabbatical," says Giddens.

"Some organizations have already indicated to us that they are gearing up to send employees to a local academic institution or a local private business" he added, "to focus some energies on studying particular elements of a business or industry. Managers see this as a quick way to get employees the training they need, and get them back on the job sooner."

What About Union Participation?

For close to a year, staff from the Field Services Department at the American Federation of Government Employees (AFGE) National have been working on the acquisition project with representatives from the Department of Defense and the various Services.

They met frequently and worked through several successive drafts of the project. AFGE's goal was to develop a Demonstration Project that is consistent with the union's vision of intelligent and effective personnel reform, and that meets the needs of employees and the Department.

Despite the best efforts of everyone involved, AFGE and the Department of Defense could not agree on a number of key details. As a result, the AFGE National President, on March 9, 1998, in a memorandum to the AFGE National Executive Council, AFGE DoD Bargaining Council Presidents, and AFGE DoD Local Presidents, strongly recommended against AFGE bargaining unit employees participating in the DoD Acquisition Workforce Personnel Demonstration Project.²

Says Bobby L. Harnage, AFGE National President, "We want you to know that the Department's representatives sought sincerely and in good faith to find common ground with AFGE on the project's design. Some revisions were made along the way, and all points of view were given a fair hearing."

The Department of Defense and AFGE did agree on one crucial issue. Acquisition

employees in bargaining units will not be included under the Demonstration Project unless a written agreement is ratified between the union and management allowing these employees to be covered.

Giddens anticipates that there will be some local unions that view this in a not-so-positive light, and they will not want to participate. "We cannot implement the Demonstration Project with bargaining unit status employees at the local level without the local union group's approval," he stresses.

Giddens regrets that after many discussions with AFGE and other union partners, the PAT realizes agreement is probably not forthcoming on some of the initiatives, including the Contribution-based Compensation and Appraisal System (CCAS). Nonetheless, he confirms that the dialogue is ongoing, and as modifications are made to the project, the changes are briefed to the National Unions. Giddens and the PAT are hopeful that before the second *Federal Register* is published, more agreements can be reached.

DoD hopes to persuade local AFGE officials to embrace this project. "It is a new system that rewards the vast majority of hard-working employees in ways not otherwise available," says Giddens. "During continued downsizing, employees will benefit from an opportunity to earn more for the additional workload being placed upon them. There is hope that employees and their AFGE and other labor organization leaders will elect to participate and attain these rewards."

"We have got to draw together and find a way to work out some agreements with the unions to get them on board," says Darleen Druyun, Principal Deputy (Acquisition and Management), Office of the Assistant Secretary of the Air Force (Acquisition), speaking at the Service Acquisition Executives Panel at the Seventh PEO/SYSCOM Commanders Conference.

Pat Stewart, Civilian Personnel Management Services, says "I think that it's an

exciting and valuable opportunity. I think that the acquisition leadership has worked very hard to do very extensive studies to come up with initiatives that will benefit the workforce. This is something that has undergone a great deal of careful consideration before being launched."

Demonstration Project Not the Easy Way Out

Giddens, Childress, and the rest of the PAT who have worked so hard and diligently to develop a viable Demonstration Project, do not view it as the *end* of change. They view it as the *beginning* of change. "I encourage everyone to look at this process, not as the end product for managing the workforce, but the beginning of change to a new process in a new environment."

Says Giddens, "This Demonstration Project is not the easy way out. If you're an organization and you want to manage people the easy way, don't do the Acquisition Personnel Demonstration. We did not set it up to establish it as the easy way out.

"Rather," he countered, "we set it up to establish it as the best way we could devise to manage a workforce, be fair and equitable to the employees, and allow them to be rewarded for the contribution they're making as we draw down and expect them to do more."

Editor's Note: The project has a Web site at <http://www.demo.wpafb.af.mil> that includes briefings, the *Federal Register* detailing the proposed changes, and a Q&A section.

ENDNOTES

1. The *Federal Register*, Vol. 63, No. 56, Notices for Tuesday, March 24, 1998, contains detailed guidance on the factors for each broadband level within each career path, to help supervisors determine how an employee is contributing.

2. See "Why AFGE is Opposed to the Demonstration Project," and "DoD Acquisition Personnel Demonstration Project Director Responds to Union Concerns," pp. 14-15.

As a military manager/supervisor in the DoD of talented managers, scientists and engineers, I also have several individuals who are ACAT managers, and others who are leaders of supporting teams. During one of our recent office staff meetings, we reviewed meaning and implementation of the PM's Bill of Rights, related personal segments of DoD 5000 Policy, Acquisition Reform, and federal/OSD policies on Ethics, Morals and Values. The discussion became very heated when one of my team leaders brought up his "real" situation and the lack of leadership's support and compliance with these "meaningless," "esoteric," and "theoretical" matters. I was stymied when the matter focused to his "so what am I supposed to do now, become a whistle-blower and end my military career?"

The specific issue is as follows. A high-level, very senior civilian executive verbally "imposed" on the ACAT PM the immediate conversion of a critical weapon system acquisition strategy, from an ongoing production methodology based on the one and only proved technique, to one which, in reality, is different only by its title. The latter acquisition strategy will deliver the same product through the same manufacturing source and the same technique, with only a substantial increase in training/combat risk to the soldier and substantial unit cost increase (spread over 5-10 years will add up to hundreds of millions of dollars). This executive then shortly retired, leaving his imposed strategy to continue on, unchallengeable, under its own bureaucratic momentum.

I have read the *Program Manager* article by Lon Mehlman (January-February 1998), "NAVSTAR GEMS Project – A Total Digital Environment Success Story," and have the following comments.

First, I am a user of GEMS, a government configuration/data management specialist. I was one of the government personnel that worked with CSC to develop the requirements for GEMS.

In my opinion, to date GEMS falls far short of what the system needed to accomplish its intended function. I have a letter from one of the GPS Pro-

gram Office contractors, [whose company] has been put on contract to deliver all contractual data [via] GEMS, and this particular contractor is "VERY UNHAPPY" with GEMS.

Anonymous

Editor's Note: I forwarded your comments to Eleanor Hill, Department of Defense Inspector General (DoDIG), Section 1034 of Title 10, United States Code, and DoD Directive 7050.6, "Military Whistleblower Protection," address the rights and protections afforded all members of the armed forces. (The DoDIG also investigates defense contractor and nonappropriated fund employee whistleblower complaints under different statutes and directives. Federal employee whistleblowers file allegations through the Office of Special Counsel.)

For copies of the two publications cited or information on how to obtain them, call the Directorate for Administration and Resources Acquisition, Office of the Assistant Inspector General for Administration and Information Management: (703) 604-9898.

Any member of the armed forces may also call or write the DoD Hotline to report instances of fraud, waste, or mismanagement:

DoD Hotline
Pentagon
Washington, D.C. 20301-1900

Comm: (703) 604-8569
Toll-Free: (800) 424-9098
DSN: 664-8569

At this time, I am working on two new proposed contracts and I "WILL NOT" use GEMS. I plan to go back to the "OLD U.S. MAIL HARD COPY" for data delivery due to all the problems with GEMS.

Bill McKinze
Los Angeles, Calif.

APMC Industry Graduates Join DSMC Staff, Faculty for 1998 Industry Managers Field Trip

Former Students Relish Opportunity to Observe
First-hand the Products and Processes
Only Recently Studied in the Classroom

GEORGE MERCHANT • JANET VINCENT • GREG CARUTH

Important lessons can be learned when program managers meet with the soldiers, sailors, airmen, and Marines who depend on the weapons systems they develop. Seventeen APMC Industry graduates — representing nine Defense industry corporations and seven DSMC faculty and staff members, including DSMC Commandant Navy Rear Adm. Leonard Vincent — were given that opportunity in April when they participated in DSMC's 1998 Industry Managers Field Trip.

DSMC's industry students
enjoy unique access to
military installations and
feedback from the user's
perspective.

THE BRIDGE AREA, ABOARD
THE USS COMSTOCK
PICTURED FROM LEFT: NAVY
REAR ADM. "LENN" VINCENT,
DSMC COMMANDANT; DON
TEAGUE; NAVY CMDR.
GREGG JACKSON,
COMMANDING OFFICER,
USS COMSTOCK LSD-45;
JANET KENDRICKS.

Merchant and Vincent are the Associate and Assistant Directors, respectively of the Advanced Program Management Course, School of Program Management Division, DSMC. Caruth is the Director, Visual Arts and Press Department, Division of College Administration and Services, DSMC. The details of the trip were initially recorded by several of the industry travelers.





THE BRIDGE AREA, ABOARD THE USS COMSTOCK PICTURED FROM LEFT: NAVY CMDR. GREGG JACKSON, COMMANDING OFFICER, USS COMSTOCK LSD-45; JANET KENDRICKS; JON BUCKINGHAM.

As recent APMC graduates, these industry managers and former students relished the opportunity to observe first-hand the products of the acquisition process they had recently studied in the classroom.

DSMC's industry students enjoyed a unique opportunity of access to these military installations and to feedback from the user's perspective. By participating in the College-sponsored Industry Managers Field Trip, they were able to cap their education in the new government acquisition policies by gaining first-hand information from the customer's perspective.



THE BRIDGE AREA, ABOARD THE USS COMSTOCK PICTURED FROM LEFT: NAVY CAPT. BOB VERNON, DEAN, SCHOOL OF PROGRAM MANAGEMENT DIVISION, DSMC; NAVY LT. CONVENTO; MARK PASIK.

Another added benefit of the trip was the shared camaraderie and increased teaming between industry and government managers who participated. As an extra-curricular activity – one that industry managers (former APMC students) returned to DSMC to experience – the trip enriched their defense industry overall knowledge and gave them a heightened awareness of what it actually means to meet, or fail to meet, the customer's expectations.



NAVY CAPT. JON MCTIGHE, CHIEF OF STAFF FOR THE NAVAL SPECIAL WARFARE COMMAND IN SAN DIEGO, BRIEFS INDUSTRY MANAGERS ON THE NAVY SEALs' MISSION AND TRAINING.

Over the years, student feedback consistently reflects feedback that many APMC students from industry typically characterize the Industry Managers Field Trip as an extremely valuable experience at DSMC – an opportunity that cannot be emulated in courses at non-military universities and colleges. This article is an attempt to impart these experiences to you, the industry manager, and encourage you to seek out what we refer to as "the DSMC educational experience."

San Diego, Coronado, LCAC Simulators

Arriving at Naval Station San Diego, Naval Surface Forces Base, Destroyer Squadron One, the trip began with a tour of the *USS Wadsworth*, FFG 9, of the Oliver Hazard Perry class of Guided Missile Frigates. Navy Cmdr. D.W. Keiler, Commanding Officer of the *Wadsworth*, provided an overview of the ship, its capabilities, typical missions, and manning. Afterward, several of the ship's officers gave the DSMC group a brief



MARINE TECHNICIAN AT THE MARINE CORPS AIR COMBAT CENTER, TWENTY NINE PALMS, CALIF., EXPLAINS FEATURES OF THE PIONEER UNMANNED AERIAL VEHICLE. PICTURED FROM LEFT: GEORGE MERCHANT, ASSOCIATE DIRECTOR, ADVANCED PROGRAM MANAGEMENT COURSE, DSMC; JODY WILKERSON; JOHN ALTRICHTER; GREG BADER; JON BUCKINGHAM; JIM WOOLEY.

rundown on the *Wadsworth's* layout and primary systems:

- Torpedo Handling and Launching Systems
- Ship's Stores, Spares and Provisioning System
- Berthing and Galley Areas
- Engineering Spaces
- Combat Information Center (CIC)
- The Bridge
- Electronic Warfare Capabilities
- Helicopter and Antisubmarine Systems
- Gun and Missile Launching Systems

At the conclusion of the *Wadsworth* visit, ship's officers left the group with a clear understanding of the pressing need for industry to consider maintenance reduction and Total Life Cycle Cost in any equipment destined for the fleet.

At the Naval Amphibious Base, Coronado, Navy Capt. Thomas Hayes, Commanding Officer of the Expeditionary Warfare Training Group, Pacific, assisted by Navy Lieutenants Stowell and Hillier, led the group on tours of Coronado's diversified facilities, followed by briefings and training videos on the importance and significance of Littoral operations, the mission of Expeditionary Forces, and typical operations and equipment used.

Next on the agenda was a tour of Coronado's training center for small craft engines, Boatswain and Coxswain training, and the operator-training simulator for the huge Landing Craft, Air Cushioned, (LCAC) hovercraft (discussed more fully in subsequent paragraphs).

Invited to participate in a training simulation in the LCAC operation simulator, several industry managers characterized the simulated training as highly realistic and informative.

AN OFFICER STATIONED AT NAVAL AIR STATION NORTH ISLAND (SECOND FROM LEFT), DISCUSSES NAVY MUNITIONS WITH NAVY REAR ADM. "LENN" VINCENT, DSMC COMMANDANT; FRANK SWOFFORD, DSMC FORRESTAL-RICHARDSON MEMORIAL INDUSTRY CHAIR; JOHN ALTRICHTER; PA M MITCHELL; DAVID PHILLIPS.



MARINE LT. COL. GARY WARNER, MARINE CORPS AIR COMBAT CENTER, TWENTY NINE PALMS, CALIF., EXPLAINS THE 26-HORSEPOWER, 2-CYCLE GASOLINE ENGINE OF THE PIONEER UNMANNED AERIAL VEHICLE. PICTURED FROM LEFT: WARNER; ANDY MUNZER; GREG BADER; GEORGE MERCHANT, ASSOCIATE DIRECTOR, ADVANCED PROGRAM MANAGEMENT COURSE, DSMC.



DURING THEIR VISIT TO ASSAULT CRAFT UNIT (ACU) 5 AT MARINE CORPS BASE CAMP PENDLETON, CALIF., INDUSTRY MANAGERS FROM THE DSMC GROUP MADE BEACH LANDINGS IN THE LANDING CRAFT, AIR CUSHIONED (LCAC), ALLOWING THEM TO "EXPERIENCE THE RIDE" AS THE CRAFT TRAVERSED THE BEACH AND SURF.



JODY WILKERSON DISCUSSES THE LCAC ENGINE WITH NAVY LT. CMDR. RODACKI, EXECUTIVE OFFICER OF ASSAULT CRAFT UNIT (ACU) 5 AT CAMP PENDLETON, CALIF.



At North Island, Talks with Experienced Pilots

At HSLT 10, Replacement Air Group, Naval Air Station, North Island, Navy Capt. David Landon explained the SH60-B Fleet Replacement Squadron (FRS) mission — to teach pilots to fly and fight. With a primary focus on safety, as demonstrated by their 90,000 hours of accident-free flying, Landon emphasized that training is a process, and noted philosophically that “You make a living out of what you get, but you make a life out of what you give.”

Today, 85 percent of the unit's mission is antisurface warfare. Other missions include search and rescue, medical evacuation, and vertical replenishment.

Following a command overview, the DSMC group visited one of North Island's aircraft hangars for a hands-on look at one of the unit's well-worn “birds.” Later discussion of past missions with experienced, multiple-deployment pilots gave members of the DSMC group a valuable user perspective in the areas of readiness, combat

capability, and repair and maintenance support.

Naval Special Warfare Center — SEAL Training and Underwater Demo

Not too many civilian managers get an inside look at any type of special warfare training, so this leg of the trip certainly captured the group's attention. The Special Warfare Command (SPECWARCOM) Chief of Staff, Navy Capt. John McTighe, and the Center Executive Officer, Navy Cmdr. Dave Lan-



DAVID PHILLIPS ATOP THE M-88 RECOVERY VEHICLE WITH A MARINE FROM MARINE CORPS AIR GROUND COMBAT CENTER, TWENTY NINE PALMS, CALIF.

Over the years, student feedback consistently reflects that many APMC students from industry typically characterize the Industry Managers Field Trip as an extremely valuable experience at DSMC — an opportunity that cannot be emulated in courses at non-military universities and colleges.

dis, presented a command briefing outlining the Navy SEALs' (Sea-Air-Land Teams) special warfare mission. Outside, SEAL students near graduation performed calisthenics while new students began work on an extreme obstacle course.

USS Comstock, LSD-45 — Moving the Big Guys

The DSMC group was welcomed aboard the *USS Comstock* (LSD 45) — a U.S. Marine transport ship that can carry soldiers, armored vehicles, and up to four LCACs — by Navy Cmdr. Gregg Jackson, the *Comstock's* Commanding Officer.

A tour of the *Comstock* included the Bridge, the CIC (to be renovated to accommodate the RAM-SSDD system), the LCAC well [which, the ship's officers noted, could double as a swimming pool and a fishing pond], and the boat/landing deck

Ship Handling Simulator Generates New Appreciation for Steering Big Ships

Retired Navy Capt. Robert Lynch of Marine Safety International (MSI) welcomed the group to the Ship Handling Simulator facility at the Naval Station National City. Featuring four simulators (two full-

up bridges, one docking, and one vessel traffic simulator), each simulator at the National City facility can operate independently or interactively for ships ranging from 133-foot mega-yachts to 265,000-ton tankers.

After touring the facility, the group went inside an operational simulator, programmed to show a Navy ship navigating through fog. The simulator has a

AN ENGINE TECHNICIAN (LEFT) AT MARINE WING SUPPORT SQUADRON 11, MARINE CORPS AIR STATION, MARMAR, CALIF., EXPLAINS ENGINE MAINTENANCE TECHNIQUES TO GREG BADER.



225-degree by 35-degree screen that can look in various directions. Actually being in the simulator, surrounded by the ship's noise, and seeing how ships respond to steering commands, gave the group a better appreciation for the skills involved in navigating ships.

ACU 5, Camp Pendleton — Riding on Air

Arriving at Assault Craft Unit (ACU) 5, the group viewed a video of the Landing Craft, Air Cushioned (LCAC) hovercraft. Navy Capt. Ned Herbert, Commanding Officer of ACU 5, explained the unit mission — to provide operational commanders with fully manned, fully trained, and well-maintained LCAC support.

This air-cushioned craft provides for the high-speed transfer of personnel, equipment, and supplies from ship-to-shore, as well as over-the-beach, fully amphibious landing carrying a 60- to 75-ton payload. Its major components include: engine modules, lift fans, skirt, propellers, bow thrusters, loading ramp, and command module. Reaching over 70 percent of the world's coastline, the LCAC is a major improvement over previous landing craft that could only reach 15 percent of the coastline.

The DSMC group performed a close-up inspection of the LCAC on dry land and

viewed a demonstration as it traversed the beach and surf. In the LCAC maintenance area, they observed components up-close, and heard maintenance personnel describe their challenges. Crew members were on hand during the inspection and demonstration to describe LCAC features and answer any questions.

A chance to sample the local cuisine was an unexpected benefit of the Pendleton visit. The DSMC group was treated to some good old fashioned Navy chow in the dining facility. In fact, the group was

so well fed [including the best cookies of the entire trip], they gave the entire dining facility staff a standing ovation!

MCAS — The BRAC Challenge

Marine Brig. Gen. William A. "Bill" Whitlow, Assistant Wing Commander, 3rd Marine Air Wing, Marine Corps Air Station (MAW MCAS), gave the command briefing, followed by Marine Maj. Ross Scanio, current Operations Officer, Marine Aircraft Group (MAG) 11. Scanio described the U.S. Marine Corps as "America's 911 force" and stressed that every Marine, including every Marine aviator, is a ri-

Scanio described the U.S. Marine Corps as "America's 911 force" and stressed that every Marine, including every Marine aviator, is a rifleman, and their primary mission is direct support to the Ground Units — the customer being the infantryman.



JANET KENDRICKS
AND MARK PASIK WITH
MARINE MAJ. PATCH
FROM MARINE CORPS
AIR GROUND COMBAT
CENTER, TWENTY NINE
PALMS, CALIF.



STEVE PAPE, JOHN AL-
TRICHTER, AND DAVID
PHILLIPS GET A HANDS-
ON LOOK AT THE M-88
RECOVERY VEHICLE,
MARINE CORPS AIR
GROUND COMBAT CEN-
TER, TWENTY NINE
PALMS, CALIF.



NAVY PILOT (RIGHT) AT
THE HSLT 10, REPLACE-
MENT AIR GROUP AT
NAVAL AIR STATION
NORTH ISLAND,
DISCUSSES FEATURES OF
THE SH-60B
HELICOPTER. ALSO PIC-
TURED FROM LEFT: NAVY
CAPT. BOB VERNON,
DEAN, SCHOOL OF
PROGRAM
MANAGEMENT DIVISION,
DSMC; CHERI
BARBAROW



A CREWCHIEF (RIGHT)
FROM MARINE
FIGHTER/ATTACK
SQUADRON 235 AT MA-
RINE CORPS AIR STATION,
MIRAMAR, CALIF., SHOWS
JANET KENDRICKS THE
LANDING GEAR OF AN
F/A-18 AIRCRAFT.

fleman, and their primary mission is direct support to the Ground Units – the customer being the infantryman.

Marine Lt. Col. George Martin then provided DSMC with a briefing on Base Re-alignment and Closure (BRAC) and the transition of the Air Station from the Navy to the Marine Corps.

Following Martin's BRAC presentation, the group met with Marine 2nd Lt. Dan Colvin, Maintenance Officer for the GE-F404 Turbofan Engine. Colvin took them on a tour of the maintenance facilities and explained the levels of maintenance done at the MCAS. The shop is qualified to perform both scheduled and unscheduled maintenance, at the Intermediate, Direct Support, and General Support levels.

Following the maintenance tour, Colvin escorted the group to the engine test facility to witness an F404 test, followed by a static display of the F/A-18.

Out to the Desert — MCAGCC

Marine Maj. Gen. Ron Richard, Commander, Marine Corps Air-Ground Combat Center (MCAGCC), and Marine Lt. Col. Scott Nelson, Operations Officer, MCAGCC, welcomed and briefed the DSMC group on the mission of the MCAGCC. They were particularly proud of the role the Center plays as the Marines Corps' unique live-fire training area for its ground forces.

At the Modeling and Simulation Center, Marine Maj. Robert Armstrong explained how units save time and funds by practicing fire and maneuver at the simulation center prior to actual live-fire exercises. The Modeling and Simulation Center is networked to similar sites at other Marine bases.

Moving on to the Enhanced Equipment Allowance Pool (EEAP), Fred Bryant, Deputy Director, spoke of the challenges of the EEAP mission, followed by a thorough briefing on the M1A1 tank and the M88A2 recovery vehicle from Marine Maj. Patch, the Executive Officer of one of the two tank battalions in the active duty Marine Corps.

Visiting the Light Armored Vehicle (LAV) area, Marine 2nd Lt. Cockhill, assisted by the LAV operators and maintainers, briefed the group on the roles and capabilities of each of the five different LAVs currently in the Marine Corps inventory. Later, the group had the opportunity to ask questions, followed by hands-on time with the equipment and Marines.

At the conclusion of Cockhill's briefing, Marine Lt. Col. Gary Warner spoke on the mission and logistics challenges of the Pioneer Unmanned Aerial Vehicle (UAV). Carrying either a daylight or night vision video camera, the Pioneer is effectively used for low-risk reconnaissance missions.

NTC — Lots of Enthusiasm, Esprit de Corps

Army Col. J.D. Thurman kicked off the DSMC group's Army Day visit to the Fort Irwin National Training Center (NTC) with the NTC Command Briefing. Following the briefing, the DSMC Commandant, Navy Rear Adm. "Lenn" Vincent, noting the enthusiasm and esprit de corps of the soldiers said, "It's a great day to be a soldier," to which Thurman responded, "Every day is a great day to be a soldier!"

Civilians and military alike were impressed to see the enthusiasm and pride of the military on display.

NTC's mission is threefold: to provide realistic joint and combined arms training focused on developing soldiers, leaders, and units of America's Army for success on the 21st century battlefield; to maintain a safe environment and quality of life for the entire Fort Irwin community; and to provide a vital source of experience-based data and information to improve and train each fighting force, providing a realistic training environment for the 21st century battlefield.

NTC's comprehensive "Road to War" training includes: contingency-based scenarios; dedicated opposing force; instrumented battlefields; full-time observer controllers; doctrine-based training; live-fire training; joint training; and

MEMBERS OF THE DSMC GROUP TOUR MARINE WING SUPPORT SQUADRON 11, MARINE CORPS AIR STATION, MIRAMAR, CALIF. PICTURED FROM LEFT: DAVID PHILLIPS; JON BUCKINGHAM; RON WETMORE; JANET KENDRICKS; JIM WOOLEY; PAUL LIOSIS.



AN ENGINE MAINTENANCE TECHNICIAN (LEFT) AT MARINE WING SUPPORT SQUADRON 11, MARINE CORPS AIR STATION, MIRAMAR, CALIF., EXPLAINS THE ENGINE MAINTENANCE FACILITIES AND SHOWS AN ENGINE MODULE TO ANDY MUNZER AND CHERI BARBAROW.



VIEWING THE REBUILT PARTS OF AN ENGINE AT THE ENGINE MAINTENANCE FACILITIES OF MARINE WING SUPPORT SQUADRON 11, MARINE CORPS AIR STATION, MIRAMAR, CALIF., ARE AIR FORCE COL. SAM BROWN, FORMER DEAN, ACADEMIC PROGRAMS DIVISION, DSMC; JON BUCKINGHAM; PIERRE MONACELLI.



ARMY COL. J.D. THURMAN KICKED OFF THE GROUP'S ARMY DAY VISIT TO THE FORT IRWIN NATIONAL TRAINING CENTER (NTC) WITH THE NTC COMMAND BRIEFING.



training processes consisting of an after-action review (AAR). The AAR is key to the training process.

The Center's philosophy emphasizes that "You can't train yourself." The need exists for training heavy forces for the high spectrum of conflict. According to NTC's briefing on OPFOR (Opposing Force), the intent is for brigades training at NTC to face the toughest force they could ever face.

Toward that end, the OPFOR uses actual threat equipment: BRDMs, BMPs, MT-12s, MT-LBs, BMP-2s, and ACRVs. Other equipment has been visually modified to emulate threat equipment, including T-80, BMP, Hind, BRDM, 2A45

(AT Gun), ASETIV-S14, SA8, SA9, and ZSUs. Training exists for high-end conflict with direct fire fights and tank-on-tank engagements.

At NTC, according to Thurman, there is no shame in losing the conflict; the ultimate intent of the training is that it be an invaluable learning experience.

Fort Irwin has trained 724,000 troops since 1982. There are 10 yearly rotations of combined-arms forces including infantry, artillery, armor, aviation, air force, chemical, logistics, air defense, engineer, military police, signal corps, electronic warfare, military intelligence, and special operations forces.

Moving on to NTC's state-of-the-art Star Wars facility, which houses the command and control of the training exercise, the DSMC group learned about the Multiple Integrated Laser Engagement System (MILES) and viewed a demonstration of its capabilities. MILES [for today's warfighters who, for the most part, came of age during the proliferation of video and computer games], provides the world's largest game of laser tag.

During a warfighting exercise, each vehicle is outfitted with laser transmitter and receivers, GPS, and a main processor to provide interface. Direct fire conflict is simulated by offensive and defensive forces and their weapon systems. Select soldiers (typically forward



Navy Rear Adm. "Lenn" Vincent, noting the enthusiasm and esprit de corps of the soldiers said, "It's a great day to be a soldier," to which Thurman responded, "Every day is a great day to be a soldier!"

At the NATIONAL TRAINING CENTER MILITARY INTELLIGENCE YARD, ARMY SGT. 1ST CLASS OLIVER EXPLAINED FEATURES OF VARIOUS SOVIET-STYLE TANKS AND ARMORED VEHICLES TO THE DSMC GROUP. PICTURED FROM LEFT: NAVY REAR ADM. "LENN" VINCENT, DSMC COMMANDANT; CHERI BARBAROW PERRE MONACELLI; MARK PASIK; ANDY MUNZER.

observers) are fitted with vests containing a smaller version of the MILES system.

Introducing the Center's OPFOR concept was Army Col. Swan, followed by Army Lt. Col. Wallace, who briefed the group on the 11th Armored Cavalry/60th Guards Motorized Rifle Division, NTC's robust opposing force that trains the principles of Army operations, and challenges the battlefield operating systems of U.S. Army brigades. The OPFOR players assume the role of Krasnovians, a nation hostile to U.S. interests. The doctrine is based on combined-arms operations, and the goal is to provide a near-peer competitor to the U.S. Army. They represent a known enemy with field

MARINE AIRCRAFT GROUP (MAG) 11 AIRCRAFT

Type	Nickname	Role
FA-18	Hornet	Fighter
KC-130	Hercules	Refueling
AV-8B	Harrier	Attack, Vertical Take-off
CH-53E	Super Stallion	Heavy Lift Helicopter
CH-46E	Sea Knight	Medium Lift Helicopter
AH-1W	Super Cobra	Fire Support, Anti-Tank Helicopter
UH-1N	Huey	Airborne Command and Control
MV-22	Osprey (Future)*	Will replace CH-53 and CH-46 roles

*The Osprey (Future), to be fielded in 2006, will offer flexibility of the tilt rotor aircraft – twice as fast as current helicopters, three times the payload, much quieter, with five times the range.

DSMC INDUSTRY MANAGERS FIELD TRIP PARTICIPANTS – APRIL 1998 –

Name	Organization
Industry Managers, Government Civilians (Representing APMCs 97-2, 97-3, and 98-1)	
ALTRICHTER, John K.	United Defense, LP
BADER, Gregory W.	Rolls Royce Allison
BARBAROW, Cheri A.	Pratt & Whitney
BUCKINGHAM, Jon B.	Robbins-Gioia, Inc.
ERICKSON, Donald E.	Lockhead Martin Aircraft Center
KENDRICK, Janet M.	General Dynamics Information Systems
LIOSIS, Paul A.	TRW
MITCHELL, Pamela M.	Lockhead Martin Michoud Support Systems
MONACELLI, Pierre	Robbins-Gioia, Inc.
MUNZER, Andrew A.	Pratt & Whitney
PAPE, Steven G.	United Defense, LP
PASIK, Mark A.	General Dynamics Land Systems Division
PHILLIPS, David A.	United Defense, LP
TEAGUE, Don E.	Boeing Guidance Repair Center
WETMORE, Ronald W.	Lockhead Martin Michoud Support Systems
WILKERSON, Joseph W. II	Honeywell
WOOLEY, James H.	Lockhead Martin Vought Systems

DSMC Staff and Faculty

Navy Rear Adm. Leonard Vincent	Commandant
Frank Swofford	Industry Chair (Forrestal-Richardson)
Navy Capt. Robert Vernon	Dean, School of Program Management Division
Air Force Col. Sam Brown	Former Dean, Academic Programs Division
Dr. James Price	Dean, Research, Consulting, & Information Division
George Merchant	Associate Director, APMC
Janet Vincent	Assistant Director, APMC
Richard Mattox	College Photographer

manuals and after-action reviews available to the Blue Forces (BLUEFOR).

Touring the C/203rd Military Intelligence yard with Army Sgt. 1st Class Oliver, the group learned that the yard provides training for the OPFOR in the employment of equipment, and provides a "technical intelligence" team to identify modifications to equipment in the field. Oliver provided details on Soviet, Chinese, and South African anti-aircraft guns, howitzers, mortars, tanks, trucks, radars, missile launchers, and armored tracked vehicles in the yard.

Now That We Have Your Attention!

As a long-term investment, DSMC views the Industry Managers Field Trip as a unique opportunity to increase government-industry teaming, and inspire industry managers and leaders to accelerate their own efforts at Acquisition Reform.

Are you an industry manager interested in attending DSMC's Advanced Program Management Course? Don't miss this tremendous opportunity. Call today.

Normally, defense industry students desiring to take a course at DSMC would register through the Council of Defense and Space Industries Association (COD-SIA). Temporarily, however, the DSMC Registrar is registering potential industry students.

For more information on specific application procedures, catalog requests, or general information about DSMC courses or schedules, visit the DSMC Home Page at <http://www.dsmc.dsm.mil> or the Defense Acquisition University Home Page at <http://www.acq.osd.mil/dau>.

Those interested may also call the DSMC Registrar at the following numbers:

Toll Free: (888) 284-4906
Commercial: (703) 805-3003
DSN: 655-3003



Joint Electronic Commerce Program Office Opens

Secretary of Defense William S. Cohen and Deputy Secretary of Defense John J. Hamre today officially opened the Department of Defense's Joint Electronic Commerce Program Office during DoD Electronic Commerce Day events at Defense Logistics Agency headquarters, Ft. Belvoir, Va. Electronic commerce is one of the best business practices identified in the Defense Reform Initiative, announced by Cohen last November to streamline the management and support structure of the Department of Defense.

The program office, formed in January 1998, is chartered to accelerate the use of electronic commerce within the Department of Defense. It brings together experts from DoD's business and technology arenas to jointly develop electronic commerce processes.

"The Joint Electronic Commerce Program Office will help to take defense business operations into the 21st century – in addition to improving efficiency and reducing costs," said Hamre. "By capitalizing on 'the revolution in business affairs,' we can help pay for the 'revolution in military affairs' and expand the use of electronic catalogs and electronic shopping malls," he added.

The JECPO is organized under both DLA and the Defense Information Systems Agency (DISA) and receives policy guidance from the DoD Chief Information Officer. Lt. Gen. Henry T. Glisson, DLA director, and Lt. Gen. David J. Kelley, DISA director, defined their agencies' roles in the project. DLA will take the lead for business developments. It will coordinate the full business cycle requirements and functional integration, identify best business practices, and work with private industry outreach, among other measures. DISA's role is to lead the technical architecture, coordinate standards, and develop enterprise licensing. It will also conduct tests, carry out technical integration, and handle systems engineering.

The office will have points of contact with each of the Services and agencies to help coordinate electronic commerce programs. The Defense Finance and Accounting Service will be represented at the JECPO owing to the importance of electronic commerce in the Department's financial reforms.

Co-directors of the JECPO will be Scottie Knott of DLA and Diann McCoy of DISA. The office will draw its resources and manpower from both DISA and DLA, and is formally located in the Jefferson Building in Tysons Corner, Va.

Editor's Note: This information is in the public domain at <http://www.defenselink.mil/news> on the Internet.

DoD Focusing on Year 2000 Computer Fixes

JIM GARAMONE

WASHINGTON — Jan. 1, 2000, is a deadline staring all of DoD in the face.

That's when DoD military and civilian workers find out if years of hard work have been successful. DoD is working to solve its Year 2000 problem.

The Year 2000 problem, its nickname "Y2K" becoming more familiar every day, came from the early days of automated data processing.

Then, computer memory was precious. To save memory, programmers for decades used only the last two digits of years rather than all four — 1998 would be written "98." In 2000, however, when computers see "00," they may not know whether it's 2000 or 1900.

So why is this a problem? The United States runs on computers, mostly linked together. Almost every computer and computer program contains some type of clock or date function. A date error might not affect much in some cases. The results could be disastrous, however, if the date controls electronic bank deposits or critical equipment.

For high-technology, computer-dependent DoD, a Y2K computer glitch might cause an F-15 fighter pilot to crash. A date error in a pay computer system may mean thousands don't get paid on time — or get paid wrong amounts. Telecommunications, transportation, the electric power grid, the movement of gas through pipelines: All these and more are controlled through computer networks. A date error could shut them all down.

"This is really the first major engagement of the information warfare age," said William A. Curtis. He is director of DoD Y2K oversight and contingency planning in the Office of the Assistant Secretary of Defense for Command, Control, Communications and Intelligence.

"We know what the enemy is, and we know when it's going to strike," he said. "We know what's going to happen. We know what to do to fix it. We're not going to have that sort of perfect intelligence in the next engagement. But how we handle this one will really set the stage for how we handle attacks in the future."

Curtis said DoD expects to spend \$1.9 billion correcting the Y2K problem. All told, the U.S. Government will spend about \$4.3 billion.

According to some estimates, he said, fixing the problem in every automated system in the United States could cost about \$30 billion.

In DoD, the Year 2000 problem is also a readiness issue. The U.S. military mission is to defend the United States and its critical interests before, during, and after 2000. There are 25,000 computer systems in DoD. Of these, officials said 2,800 are mission-critical.

"We must make sure the American people know that they are safe and that our potential adversaries know that the Year 2000 does not pose a vulnerability that they can exploit," Curtis said.

Recent reports by the General Accounting Office, the Office of Management and Budget, and the DoD Inspector General found the Department is about four months behind schedule. But DoD is making progress: A congressional committee assigned DoD a grade of "D" for the last quarter — up from an "F" last time. OMB assigned DoD to "Tier One" — its red zone, meaning DoD must do more, more, more.

"The technology behind this is not tough. We know how to fix it. It's not a technical problem," Curtis said. It is a tremendous management problem. The year problem could be hiding in so many applications, machines, and systems that weeding out every instance is a massive effort, he said.

The goal, simply, is to have computer systems work. To get there, DoD is developing what officials call an Enterprise Level Strategy. At the heart of this strategy are three vectors: report and evaluation, programmatic oversight and coordination, and test and contingency planning.

The report and evaluation vector will help senior management see where problems lie and learn lessons from past experiences. Agencies will report monthly instead of quarterly.

"There are only six quarters left until the year 2000," Curtis said. "We need information monthly so we can see where we need the effort." He said officials have designed the reporting system to be useful and not just a bureaucratic exercise. The core of this effort is a DoD Web site at <http://www.disa.mil/cio/y2k/cioosd.html>. Links to the Department's recently updated Year 2000 Management Plan and much more Y2K information are at this public site. DoD will share information with the GAO, OMB, the DoD Inspector General, and other federal agencies.

The programmatic oversight and coordination vector looks at Year 2000 progress in functional areas and the interfaces among systems, agencies, and allies. Part of this effort is certifying systems as Y2K-compliant. The GAO report found some agencies were confused about the certification process. DoD will change this process so it is uniform across its agencies.

DoD does not operate in a vacuum. DoD systems connect with systems in other federal agencies, private industry, and allies.

Defense Secretary William S. Cohen discussed the Year 2000 problem with NATO defense ministers during the recent NATO Ministerial in Brussels, for example.

U.S. regional commanders in chief are also sensitive to the operational aspects of the Year 2000 problem, and they are working with regional allies to work it out, Curtis said.

The test and contingency vector will be the primary focus in fiscal 1999, Curtis said. Enterprise testing is the hot topic. DoD uses three levels of testing: Systems-

centric tests individual systems; functional-centric tests ensure Year 2000-compliant systems throughout a functional area; and enterprise tests – or mission-centric tests – assure end-to-end performance of systems and interfaces across the range of U.S. military missions.

Enterprise testing extends systems tests to functional area testing and beyond. The regional commanders in chief will combine all these functional areas in enterprise systems tests during exercises. An enterprise system is all functional systems that work together. These tests will begin as soon as possible, Curtis said.

Agencies must, however, develop contingency plans in case the fixes do not work. "There may be unanticipated disruptions," Curtis said. "The U.S. military still has to be ready to accomplish its mission. Contingency plans must be in place."

Other initiatives on the Year 2000 problem are:

- A moratorium on modifications to any computer system that is not Year 2000-compliant.
- Establishing a High Risk Systems Board that will meet with senior leadership of every system in Year 2000 jeopardy.
- Ensuring all mission critical systems have contingency plans.

Also, DoD will establish a Y2K Augmentation Force. This group will man hotlines and update Web sites. It will support mission testing and functional-centric tests. The group will also provide emergency-response teams based at critical areas during the rollover to the new millennium.

"We have redirected our efforts by keeping our eyes on the goal," Curtis said. "The Department of Defense is focused on ensuring we have on Jan. 1, 2000, a force that is able to execute the National Military Strategy, unaffected by a date-related failure of its computer systems."

Editor's Note: This information is in the public domain at <http://www.dtic.mil/afps/news> on the Internet.

Effects of Collocating Integrated Product Teams

Impact on Cost, Schedule, and Risk

MARK E. GINDELE • RICHARD RUMPF

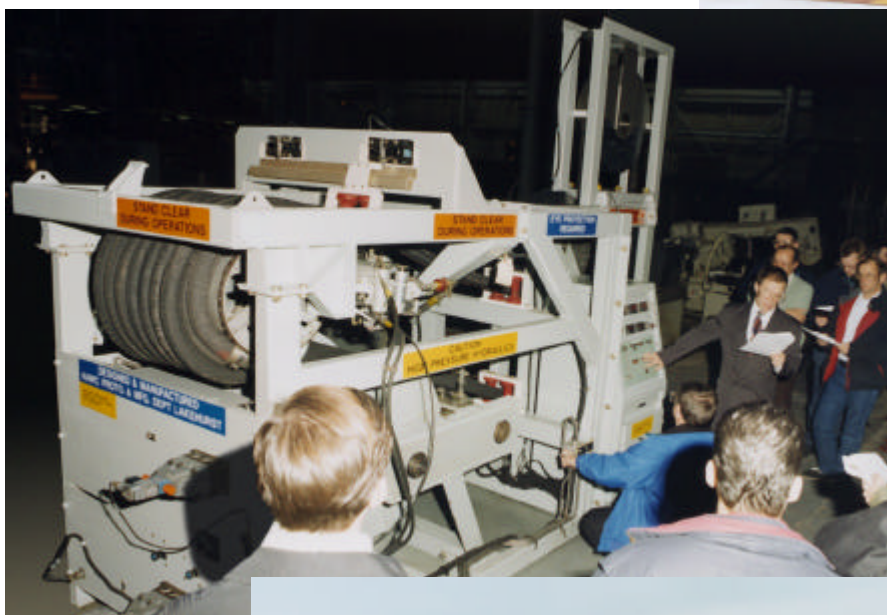
Following the end of the Cold War and the successful military actions in the Persian Gulf, Congress assigned the Base Realignment and Closure (BRAC) Commission the formidable task of evaluating DoD recommendations for realignment to determine how best to downsize military departments without jeopardizing efficiency. Toward this end, BRAC analysts examined commercial industry trends to identify potential ways to reengineer the future military infrastructure.

During the mid-1990s, we participated in an assessment study sponsored by the Navy at its Air Warfare Center in Lakehurst, N.J. We found that while some industry concepts and technological advancements may seemingly offer effective templates for reorganization, other factors need to be considered for maximum efficiency in operations.

Impact of Technology

Technology has permitted many organizations to survive, and in many cases increase efficiency. Layers of management have been removed and the organizations have become leaner and "flatter," suggesting that the organizational chart is losing its traditional pyramid shape.

In particular, the evolution in information technology, including electronic mail, video conferencing, and fax machines has enabled the establishment of links across entire organizations, laying the groundwork for a completely differ-



IN-FLIGHT REFUELING HOSE REEL TEST STAND. AN INTEGRATED PRODUCT TEAM DEVELOPED A PROTOTYPE KC-130 TEST STAND TO BETTER TEST REFUELING HOSE REELS, AFTER MALFUNCTIONING EQUIPMENT LED TO LOSS OF AN F/A-18 AND AN A-4. THE STAND WAS COMPLETED IN 30 MONTHS.



F/A-18 AIRCRAFT TESTING A MODERN BARRICADE AT THE LAKEHURST FACILITY. BARRICADES MADE AT LAKEHURST ARE THE LAST OPPORTUNITY TO STOP A PLANE FROM GOING OFF THE END OF A CARRIER.

Gindele is a manager in the U.S. Navy Prototyping and Manufacturing Department, Lakehurst, N.J. Rumpf, a former Principal Deputy Assistant Secretary of the Navy for Research, Engineering and Systems, is currently president of Rumpf Associates International of Alexandria, Va.



AN F/A-18 SAFELY CATCHES "THE WIRE" ABOARD THE CARRIER. THE RETRACTABLE SHEAVE HOUSING AND COVERS CAN BE SEEN AT THE END OF EACH WIRE.



AN AVIATION BOATSWAIN MATE SIGNALS AN F-14 TO PREPARE FOR LAUNCH. AS ONE AIR BOSS TOLD THE MANUFACTURING ARTISANS AT LAKEHURST AFTER A RECENT TOUR, "WE JUST ASSUME THAT THE LAUNCH AND RECOVERY SYSTEMS WILL WORK. WE NEVER STOP TO THINK HOW COMPLEX OR CRITICAL THESE SYSTEMS ARE TO COMPLETING OUR MISSION."



LONNIE WHITE (LEFT), ALRE ENGINEERING, CONFERS WITH ROBERT WIGGINTON, QUALITY ASSURANCE TEAM LEADER, ON A CORRECTIVE REPAIR PROCEDURE FOR RETRACTABLE SHEAVE HOUSING AND COVERS.



ent approach to organizational management.

Physical proximity is no longer a major contributing factor in coordinating the location of functions. Members from different disciplines can be located irrespective of geography and still maintain equal levels of productivity. The electronic sharing of information promises the look, feel, and synergy of working at the same site, enhancing and improving teamwork.

Technology has also improved manufacturing, with tool packages such as computer-aided-design and computer-aided-manufacturing software programs.

Reorganization of the Prototype and Manufacturing Department

The Navy's Prototype and Manufacturing Department (PMD) in Lakehurst is a \$200-million manufacturing facility staffed by 214 manufacturing engineers and artisans. The mission of the department, which has evolved over 20 years, is to provide emergency manufacturing, prototype manufacturing support, producibility analysis, and drawing package validation, and to apply new manufacturing technologies to the design, development, and product verification of flight-critical Aircraft Launch and Recovery Equipment (ALRE), support equipment, and similar hardware systems.

When the Navy recognized that the PMD's traditional organizational structure could no longer support the product demand cycle, it redesigned the PMD Lakehurst organization based on the business process, focusing on the department's core competencies, that is, the specific capabilities or activities fundamental to a Service or agency role. This alignment was radically different from the previous organizational system, which senior management basically had designed merely by moving blocks and lines on an organizational chart.

The use of technology facilitated some organizational changes at the PMD. The department adapted well to the new business environment, dramatically im-

proving its operations. The new business process redesign affected the culture and behavior of all involved.

Key to the improved organization was identifying the labor required to perform the tasks necessary to deliver quality equipment and the coordinating activity between different labor disciplines. Analysts determined that a concurrent engineering framework for organizational design was the only structure that would: 1) permit increased responsiveness in terms of shorter cycle times; 2) lower costs; and 3) capitalize on Lakehurst' experienced and proven approach. Using integrated product teams (IPT) to design, prototype, and test equipment represented a major change to the traditional development process.

The Lakehurst Program Studies

With several technological breakthroughs in mind, BRAC analysts proposed separating the departments collocated at Lakehurst and transferring the prototype department to a Naval Depot in Jacksonville, Fla., while keeping the engineering and testing disciplines at Lakehurst to reduce infrastructure and overhead.

The argument was that a virtual ALRE organization could meet the needs of the fleet and be more cost effective by not collocating the multiple disciplines. The virtual organization could use electronic technology to coordinate and control the work. Information could be passed along from engineering departments to dislocated manufacturing facilities. Close physical proximity was not critical to successful manufacturing.

This proposal raised the question of whether the ALRE team *could* operate effectively as a virtual organization with a team player located 1,000 miles away. Could electronic technology be used to coordinate and control ALRE work efforts? Could the physical separation of the ALRE team save money yet not introduce undue risk into flight critical parts?

To answer these questions, Navy Lakehurst conducted a study of five ALRE

FIGURE 1. LLLV Program Interactions between IPTs — January 1993 through January 1995

Category	Number/Duration
Number of valves reviewed:	16
Number of repairable parts per valve:	31
Communication actions (average):	25
Request for Engineering Information:	1 per valve
Number of written issues:	16.3 per valve
Requests for Salvage Action:	8 per valve
Total number of written communications actions:	25.3 per valve
Days to resolve all communications actions:	73 days per valve
Days to resolve each written action:	10 days
Other engineering time spent in PMD (not accounted for in above):	5.23 hours per week

and support equipment manufacturing programs using IPTs. The particular programs were selected because auditable data were available, and their quality standards and length of schedules represented typical projects found in the prototype department. The programs included the Low Loss Launch Valve (LLLW), the Fresnel Lens Optical Landing System, the In-Flight Refueling Test Stand, the catapult power cylinders, and the retractable sheave housing and covers.

Data collected on the five programs emphasized identifying the time, frequency, nature, and duration of interactions between team members. Program complexity was identified in terms of phase of life cycle, quantity of parts, and number of hours to complete the program.

The Low Loss Launch Valve Program

This article focuses on the findings from the LLLV program study, which provided

the most extensive data for analysis. The valve, which is used on conventional (CV) and nuclear-powered carriers (CVN), admits and shuts off the flow of steam to the launching engine cylinders for the catapults launching aircraft. Only 96 LLLVs exist, of which 57 are actively in service. The remaining 39 valves are either waiting to be overhauled or are not usable.

The LLLV's procurement history is significant. The last three companies awarded the contract to build this valve either went out of business or defaulted on delivery. Because of the lack of continuous supply of LLLVs, Navy Lakehurst became responsible for overhauling or replenishing the valves.

When a catapult fails, the ship requests an LLLV from the supply system. Because a carrier is not fully operational without the catapult, the request for the valve is considered a fleet emergency. The Navy's inventory control point tries

to maintain a supply of three LLLVs, but the supply system often does not have any available because overhauling and testing a valve takes about 12 months.

All valves, whether new or overhauled, are fully tested by Navy Lakehurst before being certified "Ready-for-Issue." The testing procedure is extensive, and includes launching equivalent weights at the Lakehurst facility, which has a land-based catapult system.

Figure 1 charts the type, nature, and duration of interactions between the IPT members on the LLLV program for the period January 1993 through January 1995.

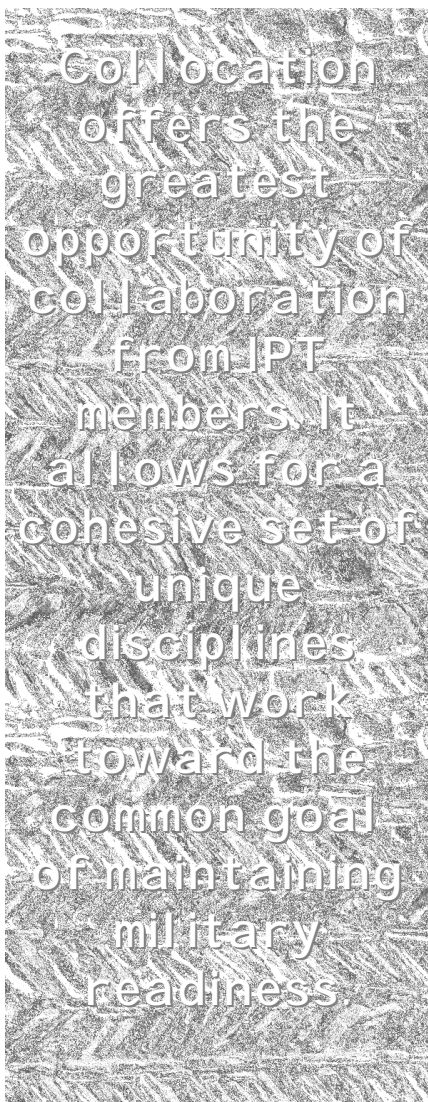
Effects of Collocated Teams

The study showed that the number of written communications actions between team members during testing and evaluation averaged more than 25 for each valve. Communications actions included requests for salvage action, additional information, or inspection reports.

What is particularly worth noting is the time that engineering personnel spent in the PMD informally directing work, changes and so forth, which is not included with other communications actions and visits. This engineering time, which averaged 5.23 hours weekly, is an indication of how often available team members had to address problems and provide direction.

Analysts determined that this immediate availability of engineering support to address problems and provide direction was essential to efficient manufacturing. As the Figure 1 data show, contact intervals between team members were numerous and of short duration. This process led to completion and documentation of success on smaller work units, which, in turn, led to overall success.

Thus, communication is critical to the successful design and manufacture of equipment. Communications between team members must be clear and frequent. Various methods can be used to conduct communications; regular joint



visits by the team members to the common sites are important. The communication methods used in Lakehurst PMD project studies were varied and extensive. The review also indicated that more technically complex programs and "flight critical" equipment require and receive the maximum amount of communications actions.

Insufficient communication leads to product failures and dissatisfaction. We have read construction industry studies indicating that 25 percent of problems and failures are directly attributable to poor coordination and poor communication. Further, studies conducted by insurance companies indicate people involved in construction projects resort to legal action when unexpected events or surprises occur, and there is a lack of

positive personal relationships and concerns among the parties.

A U.S. House of Representatives Science and Technology subcommittee examining failures determined that communications elements were critical in preventing structural failures.

The Lakehurst studies showed that closely interrelated with the need for good communication between IPT members working on programs involving complex or flight-critical equipment is the need for the team members to be collocated. A multi-discipline team needs to develop a uniformed approach to complete a program; this is facilitated by the availability of all team members and the relationships established between team members. Collocation offers the greatest opportunity of collaboration from IPT members. It allows for a cohesive set of unique disciplines that work toward the common goal of maintaining military readiness.

The Lakehurst products are not conducive to a virtual environment. By its very nature, a prototype is not a mature product. The evolution process to final design requires feedback and interaction between engineering, testing and fabrication. Locating fabrication 1,000 miles away from other team members would minimize this interaction and introduce the opportunity for entering into production a product that has not been through the design maturation process, which increases the possibility of under-designed equipment entering into the fleet and resultant failure. The findings in the Lakehurst studies suggest that the separation of functions may have been a contributing element in the failure of commercial sources to adequately deliver valves.

Our study indicated that dislocation of disciplines not only would not be effective, but also would adversely introduce risk into the ALRE systems. Electronic transfer of information only works when the transfer is complete. For example, when transferring technical information packages via electronic means, the paper document generated must be of

sufficient quality to be reviewed, interpreted, and understood by different personnel. Questions are more easily and quickly answered if all the team personnel are present to immediately address the issue. If they are not present, either the questions don't get addressed, get interpreted [correctly or not], or get written and forwarded to the originator for resolution. Collocation offers the environment for faster and more efficient resolution.

Any beneficial cost savings obtained by separating manufacturing from engineering and testing departments needs to be compared to any increase in risk. For the LLLV, a cost-benefit analysis showed that the overhaul schedule increased by 42 percent, and cost increased by 48 percent. For prototype products, cost and schedule increases were even higher. Using return on investment evaluation techniques, separating the IPT had no positive payoff. Figure 2 charts the calculated impact on the schedule of several Lakehurst products if the IPTs were dislocated.

Non-defense-related industries are also discovering the importance of collocation to gaining improvements, such as product cost, quality, and schedule. Ford Motor Company, in its goal of improving upon America's most popular car, the Ford Taurus, considered all aspects of designing and building cars for its 1996 redesigned car. An obvious and important innovation on managing this program was collocating the entire Taurus team of 700 people in the same building. By having the engineers, designers, and factory-floor workers working side by side, each discipline was able to critique each other's work as the project went along. According to *Business Week* magazine (July 24, 1995), the new Taurus avoids the mix and match dissonance of many American cars.

At the engineering firm of Day & Zimmerman, Inc., headquartered in Philadelphia, Pa., senior management decided to relocate one-fourth of the company staff outside the city and electronically connect the two sites. However, after a five-year trial period, they realized the virtual

office wasn't working. As reported in the *Philadelphia Inquirer* (Dec. 19, 1995), electronic technology turned out to be no match for random conversation, spontaneous interaction, and the ideas that spring from them. Day & Zimmerman moved the entire company back to one location.

A Summary of Study Findings

The success in manufacturing was directly attributable to the use of IPTs. Extensive communication between engineering, manufacturing, and testing teams led to the resolution of problems quickly. Face-to-face meetings were frequent, and issues were resolved in minutes without resorting to technical memoranda or other protracted written documents. Collocating the team members was the most critical factor for benefiting from concurrent engineering.

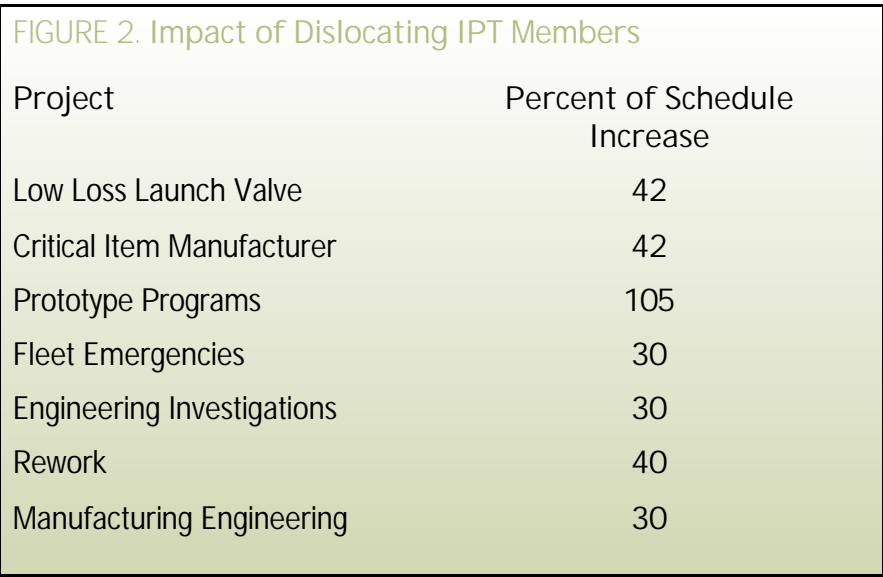
Having design engineers working closely with the manufacturing team led to savings from identifying problems during the design phase rather than on the manufacturing floor. The IPT structure led to savings in schedule length and material savings because fewer prototypes had to be fabricated. Similar savings have been presented on the F/A-18 E/F, the Joint Advanced Strike Technology Program (JAST), and other defense programs.

Properly employing concurrent engineering and integrated product teams can reduce schedule, risk, and final cost.

Physical and durable products that require collaboration from multiple disciplines benefit tremendously by being collocated. Evidence indicates that the more complex a system is, the greater the need for more frequent and local communication, which, in turn, increases the need to collocate disciplines.

Changing an organization that has worked well deserves a fair and careful analysis. Suggesting theoretical approaches and unproved technologies as the answer to cost reduction is naive and sophomoric. The cost of ALRE item failure usually is the loss of an aircraft, a life, or both. Moreover, just a marginal decrease in quality (.00001 decrease) will result in the annual loss of four planes, costing an average of \$55 million each. As these figures attest, no economic model supports separating the concurrent engineering organization found at Navy Lakehurst.

Editor's Note: The author acknowledges the critical role Navy Lakehurst provides in supporting the carrier fleet, particularly Navy Vice Adm. John A. Lockard, Commander, Naval Air Systems Command, who implemented the Aircraft Launch and Recovery Equipment Acquisition and Life Cycle Support Plan, dated Sept. 24, 1996. This plan allows the Navy to maintain the organic core workforce at Lakehurst to do research, development, test and evaluation, and limited manufacturing for ALRE systems.





Roger W. Kallock Appointed Deputy Under Secretary of Defense for Logistics

Secretary of Defense William S. Cohen today announced that Roger W. Kallock has officially assumed duties as the Deputy Under Secretary of Defense for Logistics (DUSD(L)). Kallock was named in May to head that office, and his position became effective June 24.

As the DUSD(L), Kallock is the principal advisor to the Under Secretary of Defense (Acquisition & Technology) for policy and oversight of the military departments' logistics activities. He also oversees policy for the DoD in the specific functional areas of materiel management, maintenance, transportation, logistics systems development, continuous acquisition life cycle support, and electronic commerce/electronic data interchange.

Kallock brings more than 30 years of private sector logistics consulting experience to his new job. Before joining the DoD, he was a managing partner at Computer Sciences Corporation (CSC). He is an international leader in the field of reengineering business logistics processes. As co-founder and chairman of Cleveland Consulting Associates (CCA), Kallock led more than 50 major account relationships, assisting clients in improving supply chain-related business processes that included distribution, transportation, manufacturing, and customer service.

Kallock's professional career began at Procter and Gamble, where he had line responsibility for managing two major warehouses and a shipment planning office, as well as staff responsibilities in industrial engineering. His consulting career started with A T Keaney's new Chicago-based Transportation and Distribution Practice. For the last seven years, he has been involved with the integration of CCA into CSC. Before leaving CSC he served on the corporation's opportunity review council as a mentor to members of the management team and as an advisor to senior client management.

Kallock graduated from the University of Michigan in 1961 with an M.B.A. and a B.S.E. (Industrial Engineering). His educational interest continues as a guest lecturer and author of articles on commercial logistics issues. Kallock has long been active [on] the Council of Logistics Management, serving as president in 1984 and receiving the Council's Distinguished Service Award in 1990.

Editor's Note: This information is in the public domain at <http://www.defenselink.mil/news> on the Internet.

DSMC & Boeing Cultivate An Unconventional Educational Partnership Beyond the Norm

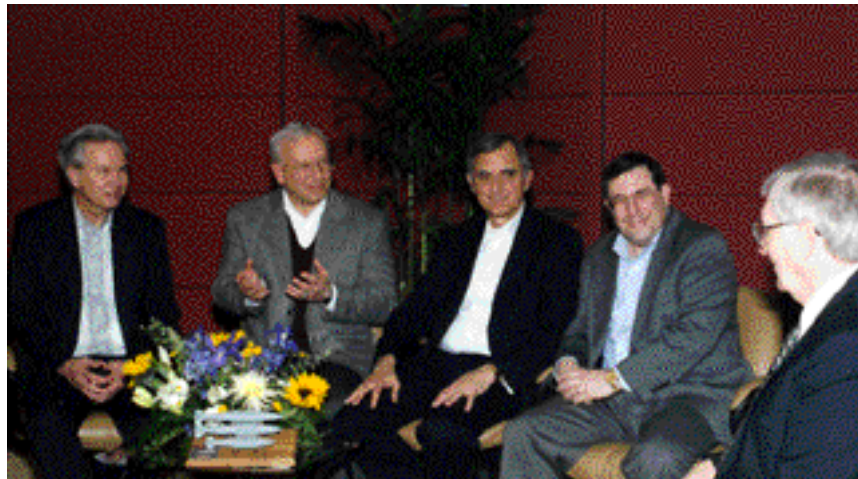
*"Just in Time, Just for Me,
Just Enough, Anytime, Anywhere, Anyone"*

DR. BERYL A. HARMAN, CPCM • DANIEL G. ROBINSON

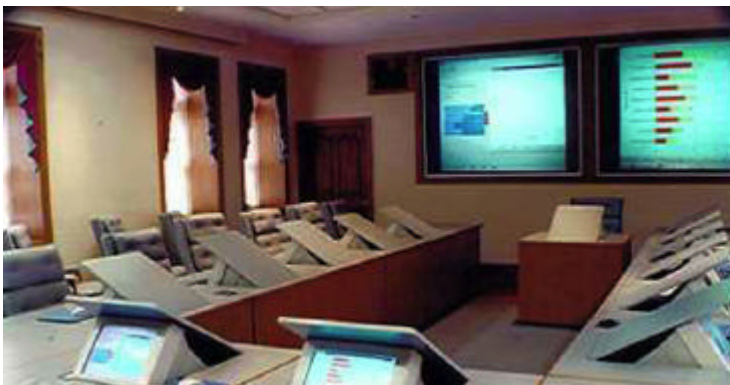
The Research, Consulting, and Information Division (RCID) of the Defense Systems Management College (DSMC), in partnership with the Boeing Company – Office of Lifelong Learning, has just developed a new educational product to support the current initiative of just-in-time training. This product is a three-day workshop, assembled around an in-depth case study on Acquisition Reform, to assist in implementing change in the acquisition process.

A Joint, Interactive, Unique Learning Experience

This joint effort between DSMC and Boeing is designed to develop a unique learning experience to help individuals and Integrated Product Teams (IPT) learn and apply Acquisition Reform prin-



PANEL OF JDAM GOVERNMENT AND INDUSTRY PROGRAM MANAGERS. PICTURED FROM LEFT: CHARLES DILLOW, INDUSTRY JDAM PROGRAM MANAGER, THE BOEING COMPANY; DR. PAUL G. KAMINSKI, FORMER UNDER SECRETARY OF DEFENSE (ACQUISITION & TECHNOLOGY); OSCAR SOLER, GOVERNMENT JDAM PROGRAM MANAGER, AERONAUTICAL SYSTEMS CENTER; RC SYLVESTER, ACTING ASSISTANT DEPUTY UNDER SECRETARY OF DEFENSE (SYSTEMS ACQUISITION); DAN ROBINSON, ASSOCIATE DEAN FOR CONSULTING, RCID, DSMC.



DR. CYNTHIA INGOLS, A MANAGEMENT CONSULTANT AND GRADUATE OF HARVARD SCHOOL OF EDUCATION, DEVELOPED AND COMPLETED THE JDAM CASE STUDY USING THE HARVARD METHOD OF CASE STUDY RESEARCH.

DSMC MANAGEMENT DELIBERATION CENTER.



Harman is a Professor of Systems Acquisition Management, and Robinson the Associate Dean for Consulting, respectively in the Research, Consulting, and Information Division, DSMC.



THE JOINT DIRECT ATTACK MUNITION (JDAM) ON DISPLAY. PICTURED FROM LEFT: DR. JAMES PRICE, DEAN, RCID, DSMC; DR. CYNTHIA INGOLS, MANAGEMENT CONSULTANT; LISA BREM, ASSISTANT TO DR. INGOLS; NAVY CAPT. BOB VERNON, DEAN, SPMD, DSMC.



DEVELOPED BY BOEING, THE JOINT DIRECT ATTACK MUNITION (JDAM) IS A GUIDANCE KIT THAT CONVERTS EXISTING UNGUIDED FREE-FALL BOMBS INTO PRECISION "GUIDED" MUNITIONS. Photo courtesy The Boeing Company



THE BOEING COMPANY EXHIBIT AT THE SEVENTH SEMI-ANNUAL PEO/SYSCOM COMMANDERS CONFERENCE, DSMC, APRIL 1998. PICTURED FROM LEFT: NAVY CAPT. BOB VERNON, DEAN, SPMD, DSMC; DR. JAMES MC MICHAEL, DIRECTOR OF EDUCATION, TRAINING AND CAREER DEVELOPMENT, OFFICE OF THE DEPUTY UNDER SECRETARY OF DEFENSE (ACQUISITION REFORM); BARBARA HETHCOTE, PRINCIPAL SPECIALIST OF [THEN] MCDONNELL DOUGLAS LEARNING CENTER; DR. JAMES PRICE, DEAN, RCID, DSMC.

ciples and practices. Built around a case study using the Joint Direct Attack Munition (JDAM) program as the centerpiece, this learning experience will demonstrate how technology can be used to help change the way we educate the Acquisition Workforce (AWF).

The interactive learning experience can be held in DSMC's Management Deliberation Center (MDC), which incorporates the latest interactive hardware/software capabilities, providing students a state-of-the-art interactive learning environment.

The Center is currently used for compiling group session quantitative and qualitative data as an aid to complex problem solving. The tools resident on the systems, along with experienced facilitators, will provide students a fully interactive learning environment.

By using interactive software, videos, case studies, and other learning tools like action research, students have the opportunity to draw on their experiences and the experience of others as a means of stimulating their own learning environment. Assisted by experienced process facilitators, students can use the latest education and information technology to process current innovations and apply them to program issues on a real-time basis. Videos, for example, can be used to provide real-time good news stories as a learning tool, and case studies can stimulate creativity in dealing with the issues and realities of real-life situations.

A Case Study in the Making

So how did this all come about? The impetus for developing the workshops came from the Spring 1997 PEO/SYSCOM Commanders Conference held at DSMC. At that conference, James Sinnett, Vice President-Technology, Advanced Systems and Technology, McDonnell Douglas Corporation, spoke actively in support of government-industry training in the area of Acquisition Reform and recommended the government institute an outreach program on education and training.

Dr. James McMichael, Director of Education, Training and Career Development for the Deputy Under Secretary of Defense (Acquisition Reform), intrigued by this idea, discussed with Sinnett the possibility of an educational partnership using experiential case studies as a stimulant to educational success.

Sinnett, impressed by the achievements of the teaming process between McDonnell Douglas Corporation and the government on the JDAM program, suggested that government and industry form an alliance to develop a JDAM case study.

Since the Defense Acquisition University was also interested in the use of case studies as a means to share lessons learned and to provide insight to all sides of an acquisition relationship, McMichael concurred and suggested that DSMC could add value to the project. Dr. James Price, Dean of RCID, was contacted shortly thereafter and asked to develop, in conjunction with the McDonnell Douglas Corporation, a learning experience drawing on the JDAM program that would benefit both industry and government.

Development began in May of 1997 with a core team consisting of Dr. James Price, Dean RCID; Dan Robinson, Associate Dean of Consulting, RCID; and Dr. Beryl Harman, Professor of Systems Acquisition Management, RCID, representing DSMC. Representing McDonnell Douglas Corporation were Barbara Hethcote, Principal Specialist of [then] McDonnell Douglas Learning Center; and Cheryl Kerr, Engineering Manager, Advanced Systems and Technology. Shortly thereafter, McDonnell Douglas Corporation became part of the Boeing Company.

The Case Study Selection — Why JDAM?

Why is JDAM considered an interesting case study and potential learning tool? The entire acquisition community faces challenges to reduce or eliminate military requirements that mandate unique processes within defense production facilities. The desire is to take advantage of the commercial marketplace by de-

livering new systems into the hands of warfighters within commercially available cycle times, not the previous average of 12 to 18 years' development time for a major DoD weapon system.

DoD and industry's senior acquisition executives and leaders firmly believe that future military advantage will belong to those who capture state-of-the-art technology, get it into weapon systems, and successfully field those systems first. Toward that end, the Federal Acquisition Streamlining Act (FASA) of 1994 charged the Services to identify specific, unique military systems as Defense Acquisition Pilot Programs (DAPP). These pilot programs are test beds for the use of commercial processes, practices and procedures, and are charged to demonstrate new and innovative approaches.

The JDAM program was selected as a DAPP and afforded statutory relief under FASA to accomplish these objectives. As a result, the processes and the collaborative techniques the industry-government IPTs used to implement JDAM epitomize how the philosophy of Acquisition Reform can be put into practice and contribute to reduced contract costs, improved development and delivery schedules, and gains in efficiencies.¹

The JDAM program (converting dumb bombs to smart weapons using commercial practices) started as a traditional procurement process in 1991. In 1994, the program was streamlined using the principles, practices, and processes of Acquisition Reform, with extraordinary results. Through a performance-based partnership approach between government and industry, the program was able to cut development costs by 25 percent and program staff by 60 percent, and projected a 33-percent savings in production and delivery schedule, and 67-percent savings in product price.

This potentially reduced the overall program cost from \$5.5 billion in 15 years to \$2.5 billion in 10 years. Managing this program required a complete change in mind set for both industry and govern-

ment. As the Boeing Company assumed responsibility for performance, both parties recognized two key management strategies: *that fewer people get better results because they don't create extra work for each other; and collaboration, to be successful, requires an open commitment to shared goals.*

The JDAM approach to Acquisition Reform is not considered a model in steps and methods. Rather, the approach is a philosophy with certain goals that can be applied to any program; i.e., manage at the performance level, have few requirements and targets, emulate commercial practices, have a collaborative relationship with contractors, be a coach not a policeman, and create a sense of urgency by committing to ambitious goals.

Using the JDAM experience as a learning tool and starting point is a way to help students explore innovative ways to accomplish their own programs and motivate students to use good business sense in their day-to-day operations.

The major objective of the learning experience is for students to benefit from the study of lessons learned throughout all aspects of the JDAM program. Specifically, students learn how to:

- maximize the overall benefits of Acquisition Reform when planning and managing a military program;
- develop, as members of new program teams, an understanding of the Acquisition Reform philosophy;
- apply Acquisition Reform principles and practices early in the planning process; and
- accelerate the implementation of innovation within their own program structures.

In fact, this learning experience is a multi-purpose package designed to provide just-in-time training to acquisition teams planning and executing individual programs, and as a way to gain insight into the latest DoD initia-

tives as part of a continuing education process.

A Word About the Workshop

The government and Boeing will offer two different versions of the workshop. The one offered through the Boeing Company will primarily focus more on the prime/subcontractor relationship, and how teaming and collaboration can significantly aid the execution of the program. The one offered through DSMC will focus more on the government-industry teaming process as it relates to strategies and managing an acquisition program.

In either case, Boeing and DSMC will aim at providing the three-day workshop to intact program teams. The idea is to move away from a paradigm of attending a class at a specific point in time, to one of providing the tools to the people just-in-time, when they are needed the most.

Benefits Expected

Specific benefits are achievable through this type of workshop:

Realism, Live Scenarios. Primarily, the teams participating in these workshops – a combination of government and industry personnel – experience real applications, using live scenarios.

Development of In-house Expertise. Through joint development, the teams receive multi-perspective insights into the application of commercial practices and the implementation of Acquisition Reform. This allows them to collectively develop in-house experience and use that in-house expertise for realism, accuracy, and connection to the business.

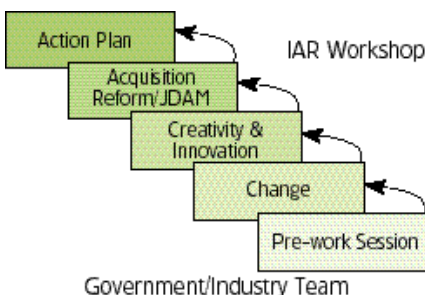
Case Study Method. The workshop uses the case study method and a series of videos to focus on this real-time application and to nurture collaborative relationships between the government and industry.

Accelerated Implementation of Acquisition Reform. Lastly, the workshop is an aid to accelerated implementation of

Acquisition Reform by affording students an opportunity to gather and capture the essence of lessons learned.

Ultimately, these workshops will provide students an understanding of what works, and what does not work in an Acquisition Reform environment.

Defining the Workshop Structure



How did DSMC and Boeing go about developing the workshop, and what does it include? The core development team met at both DSMC and the Boeing Life-long Learning Center to brainstorm and develop a workshop structure that will be applicable to the learning needs of both industry and government AWF professionals. The need was to develop a learning experience to help these professionals understand, apply, and accelerate innovation through the implementation of Acquisition Reform.

In attempting to make this a total learning experience, the core team obtained inputs from members of the Office of the Secretary of Defense, industry, the JDAM Program Office, and the DSMC faculty. These activities assisted the development team in determining the needs of the AWF, developing objectives, and determining a meaningful structure for the experiential workshop.

Each workshop begins with a "pre-work session." This provides the team members time to review the case study and determine their acquisition needs. This pre-work session is important because it introduces the student to the concept of the case study method and explains how that method will be beneficial to the learning environment.

Part I. The pre-work session also prepares the student to step forward into Part I of the workshop, which focuses on the issue of "change" and covers such topics as the change agent, change sponsorship, change strategy, and changing paradigms. Instructors lead students into the various aspects of change by discussing such topics as the partnering process, identifying barriers, and clarifying major interrelationships.

Part II. The team then steps to Part II, "creativity and innovation," which is a set of exercises designed to help team members understand the meaning of thinking beyond the norm and opening their minds to possibilities within their own planning process.

Part III. Stepping to Part III, the team then focuses on the issues and methods available through "Acquisition Reform." Using experiential video clips, technology, and the case study method, the team develops an understanding of the reform philosophy, the latest initiatives, current innovations, business barriers, and the consequences or unintended consequences of various applications.

Part IV. Once understood, the team steps to Part IV where they collectively develop new, innovative approaches for future program actions or strategies on their program. Over half of the program is devoted to working on the team program itself.

Adding Meaning Through the Case Study Method

What exactly does a case study truly lend to the process? In essence, a case study methodology requires three fundamental shifts in perspective:²

- First, a shift in the balance of power – it moves students from an autocratic classroom environment where the instructor is all powerful, to a more democratic environment where students share in the decision-making process.
- Second, a shift in the locus of attention – it moves students from a concern with the material alone to an equal focus on the content, classroom

process, and the learning environment. This allows students to obtain knowledge for themselves and to begin to understand potential possibilities for implementation.

- Third, a shift in instructional skills – it moves students from declarative explanations to questioning, listening, and responding, which helps to develop interpersonal skills and establishes a sensitivity to the need for team development.

Recognizing that JDAM is an on-going program, it was considered important to document in a case study the history, changes, and measures of effectiveness that were most instrumental to the execution of JDAM.

The Case Study

Dr. Cynthia Ingols, a management consultant with Corporate Classrooms, Inc., Cambridge, Mass., developed and completed the case study. Ingols specializes in developing relationships, creating highly interactive training and meeting events to parallel participative management strategies, and diagnosing organizational barriers to innovation and change. She is a graduate of Harvard School of Education and schooled in the Harvard Method of case study research.

To begin, Ingols performed the data collection by developing a structured interview guide, followed by one-on-one interviews with JDAM personnel from both government and industry. This included perceptions as well as historical information from select personnel within OSD and Office of the Secretary of the Air Force. This case study forms the apex of the experiential learning environment.

Video Presentations

Recognizing that the case study is just one medium with which to introduce the idea of change, DSMC and Boeing decided to supplement the presentation though a series of video clips that document good news stories and the current thrust of Acquisition Reform within DoD.

The participants in the video clips were: a team from the F-15 Program; Dr. Paul

G. Kaminski, former Under Secretary of Defense (Acquisition and Technology); Bill Mounts, Director of International and Commercial Systems for the Deputy Under Secretary of Defense (Acquisition Reform); David Drabkin, Assistant Deputy Under Secretary of Defense for Acquisition Process and Policies; and a panel consisting of the JDAM industry and government program managers – Charles Dillow, industry JDAM Program Manager; Oscar Soler, government JDAM Program Manager; Kaminski; and Ric Sylvester, Acting Assistant Deputy Under Secretary of Defense (Systems Acquisition).

Beta Test

On March 12-13, an abbreviated workshop was piloted at the Boeing Office of Lifelong Learning. Dr. Ingols presented the case study using the Harvard Method, supported by the original program managers responsible for the JDAM strategy – Charles Dillow, The Boeing Company; and Terry Little, Joint Air-to-Surface Stand-off Missile (JASSM) Program Manager. The presentation was an unmitigated success.

At the conclusion of the presentation, participants submitted helpful comments and suggestions, which were evaluated and taken into consideration as part of the final workshop design.

Change is Constant

So what was learned as a part of this process? *That change is constant.* As DoD embarks on a cultural shift in its way of doing business, both DSMC and Boeing are keenly aware of the ever changing climate of Acquisition Reform, and the need to constantly change and adapt their education and training to an increasingly sophisticated and technologically advanced AWF.

DSMC and Boeing have stepped up and taken the risk of developing non-traditional methods of training and education to meet the needs of the AWF.

Expected Outcomes

Perhaps you're wondering when and where *you* can sign up for this interactive, educational experience. Intact, established teams, or even teams currently

in the making, may contact Flo Brueser at DSMC (703-805-2728) to schedule a workshop. This includes teams at the beginning phase of a program, teams about to embark on a major modification, or teams merely interested in restructuring an existing program.

Whatever phase of your program, if your team is interested in some just-in-time training in implementing Acquisition Reform principles and practices, pick up the phone. And in the words of David Drabkin, "Just do it!" Start now so that Acquisition Reform can be a part of your acquisition strategy in the near future.

As for the future, DSMC anticipates offering the JDAM case study effort as a part of its Advanced Program Managers Course and as an elective for its Executive Program Managers Course.

One Last Word

A new motto is taking shape within the educational environment: "Just in Time, Just for Me, Just Enough, Anytime, Anywhere, Anyone." This motto recognizes the need to leverage technology to provide the best experiential methods and learning experiences when needed by acquisition teams.

This is not an easy transition, but a step-by-step process, using all of the knowledge and techniques available. In the words of Terry Little, JASSM Project Manager, "People are the key. We have to find the ways to work together." This is one instance where educators and industry are not waiting for things to happen – they are, in fact, partnering to make them happen!

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Paul J. Hoeper Sworn In As Assistant Secretary of The Army

Paul J. Hoeper was sworn in Friday [May 29, 1998] as Assistant Secretary of the Army (Research, Development and Acquisition) (ASA[RDA]) by the Acting Secretary of the Army Robert M. Walker.

In this position, Hoeper will serve as the Army Acquisition Executive, the Senior Procurement Executive, and the Science Advisor to the Secretary. Also, he will serve as the senior research and development official for the Department of the Army. Among his responsibilities as ASA(RDA) are: appointing, managing, and evaluating program executive officers and program managers; managing the Army Acquisition Corps; and overseeing research, development, test, evaluation, and acquisition programs.

Formerly Deputy Under Secretary of Defense (International and Commercial Programs), Hoeper's association with the Department of Defense and the defense industry dates to the mid-1970's, when he served as consultant to the U.S. Navy on major missile and anti-submarine system procurement. Hoeper has also consulted to private companies in the aerospace industry on numerous defense programs, strategic issues, and corporate restructurings.

In 1993, he was selected to serve on the Defense Science Board (DSB) Task Force on Acquisition Reform. As a member of the Task Force, he served on several panels, including the Oversight Cost Panel and the Large-Scale R&D Commercial Practices Panel. He was the DSB representative to the Integrated Dual Use Commercial Companies Working Group, sponsored by the Deputy Under Secretary for Acquisition Reform.

Hoeper also served on the faculty of Stanford Law School and as Adjunct Professor at the University of Southern California (USC) Law Center. In 1989, he developed a course entitled What Lawyers Should Know About Business for the Stanford Law School, and taught the course at USC from 1991-1995. He was a member of the Los Angeles High Technology Council and served as a panelist at the Berkley Roundtable on the International Economy, focusing on the defense industry transition.

In December 1996, Secretary of Defense William J. Perry awarded Hoeper the Secretary of Defense Medal for Outstanding Public Service. Hoeper received his B.S.E. in Basic Engineering from Princeton University in 1968, and his M.A.T in Mathematics from Harvard University in 1972. In his leisure time, Hoeper enjoys playing competitive tennis, flyfishing, and playing the piano. He and his wife, Barbara Fowler, are the parents of two children.

Editor's Note: This information is in the public domain at <http://www.dtic.mil/armylink/news> on the Internet.

Using Commercial Suppliers — Barriers and Opportunities

DoD Customers and Suppliers Can Benefit From Basic Market Research

MICHAEL HEBERLING • J. RONALD MCDONALD


R. MICHAEL NANZER • ERIC REBENTISCH • KIMBERLY STERLING

Reducing acquisition costs by using commercial instead of military-unique practices and technologies is an increasing goal of government. A pilot project presently leveraging the commercial electronics manufacturing base is the Military Products From Commercial Lines (MPCL) program, a four-year project designed to demonstrate that high technology military hardware can be built on a highly automated commercial production line, with equivalent durability, functionality, and reliability, and at a significantly reduced price.

Sponsored by the Air Force Research Laboratory's Manufacturing Technology Division, TRW Avionics Systems Division was the prime contractor of the MPCL program, supported by the TRW Automotive Electronics Group — North America.

The initial phases of the MPCL program involved producing military products from commercial lines and then conducting two surveys of commercial industry to identify commercial manufacturers' receptivity to producing military products on their production lines.

Integrated teams of military and commercial professionals developed with commercial suppliers a partnering methodology that encompassed processing technology enhancements, im-



The partnerships necessary for the future success of commercial item acquisitions by DoD customers depend on both parties understanding the new rules of the game.

proving manufacturing infrastructure flexibility, and streamlining business practices. Following the initial phases of the pilot program, the program team conducted market research on the transferability of the military products from the commercial lines concept to the commercial sector. This article reflects the results of that research.

Production Project Yields Significant Savings

In the initial production test phase, avionics modules for the Air Force's F-22 Raptor Fighter Aircraft and the Army's RAH-66 Comanche Helicopter were redesigned using largely commercial off-the-shelf parts (Figure 1). A computer integrated manufacturing (CIM) system implemented at the TRW Automotive Electronics Group's Marshall, Ill., plant ensured minimal line interruption for the set-up and change-over between military and commercial products.

The team implemented a rigorous component reliability program, conducting "design-of-experiment" testing to prove that the redesigned hardware was as durable and reliable as the baseline military hardware. Most important, given the government's military Acquisition Reform processes, the MPCL team established a process for acquiring military-unique modules as commercial items, relying on price analysis instead of cost analysis.

Heberling is President, Center for Graduate Studies at Baker College in Flint, Mich.; McDonald is with TRW Avionics Systems Division (ASD), San Diego, Calif.; Nanzer is the Business Practices IPT Lead, TRW ASD; Rebentisch is a research associate for the Massachusetts Institute of Technology, Cambridge, Mass.; and Sterling is Director of Marketing and Communications, IPC, Northbrook, Ill.

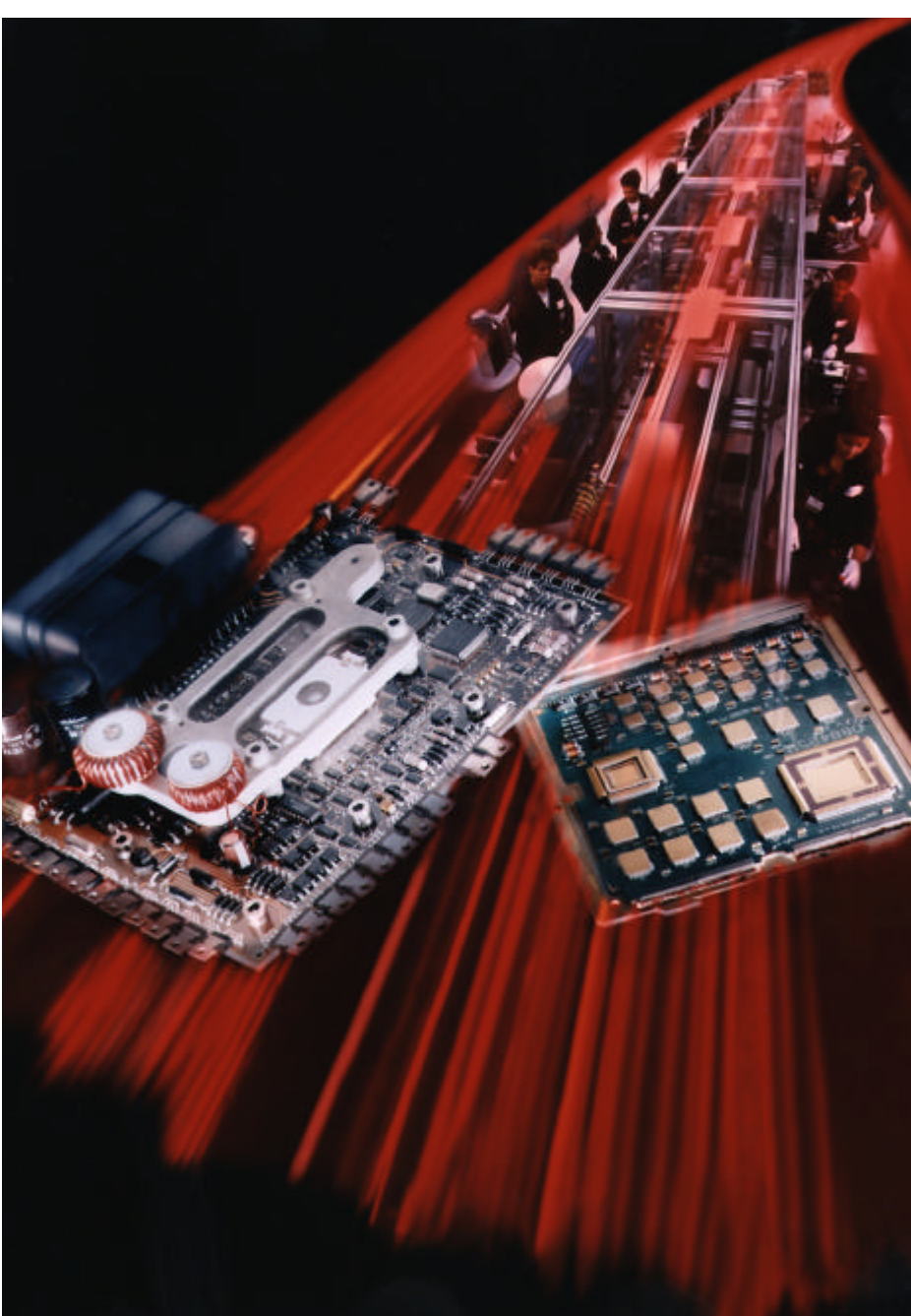


FIGURE 1. Key Features and Benefits of MPCL Concept

FEATURES

- Exploit Proven Quality and Cycle Time on High-Volume Commercial Lines
- Design for Manufacturability AND Commercial Practices
- Maximize Adoption of Best Practices via Team-Based Approach

BENEFITS

- 30-50% Cost Savings for F-22 and RAH-66 Electronic Modules
- Demonstrated Manufacture of Military Modules Using Commercial Processes and Practices
- Process and Model for Subcontracting to Commercial Suppliers

The Air Force and Army program beneficiaries realized a greater than 50 percent cost avoidance over the baseline military hardware versions. Additionally, the technology enabling the commercial redesign of additional F-22 modules resulted in recurring cost reductions.

Facilitating the MPCL success in implementing the commercial contract was a model contract similar to contracts used in TRW's commercial automotive business, and a performance-based business practices handbook that replaced canceled military standards. Integrated teams of personnel from both the military and the commercial sector developed the handbook. The teaming approach helped to ensure that the practices outlined in the handbook were both acceptable to TRW's commercial automotive group and satisfied the military's requirements. The handbook requirements, which could be tailored cafeteria-style to individual procurement, included the best practices from industry and government, and non-government standards, such as ISO-9001.

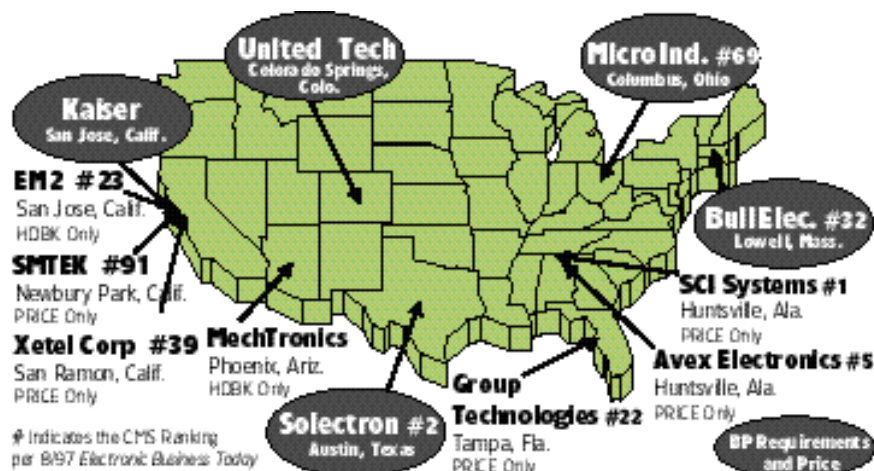
Going Beyond Demonstration to Transfer

Having demonstrated the benefits gained from producing military products from commercial lines, the program team turned its attention to the next MPCL strategy, transferring the technology to industry. The team recognized that additional commercial industry input to the handbook and model contract was necessary to achieve the transfer process.

To obtain the necessary input, the MPCL team conducted two surveys: an in-depth requirements validation survey of a small number of commercial electronic manufacturing service (EMS) firms, and a broad-based commercial impact survey of more than 1,340 EMS and printed wiring board (PWB) companies.

Business Practices Requirements Validation Survey. To validate the transferability of the military products from commercial lines, the team surveyed major EMS industry firms identified from industry trade journals and Internet searches. The survey was modeled

FIGURE 2. Requirements Validation Survey Participants



after a typical commercial transaction for EMS services. The MPCL team constructed a request for quotation package (RFQ) that included the business practices handbook requirements, the model contract terms and conditions, and a representative build and test quantity of MPCL modules.

The MPCL team provided each participant with a full technical data package. Each firm received the same material pricing data to avoid needlessly exercising component suppliers. In addition to pricing information, participants were asked for qualitative feedback on the producibility of the commercial redesign and the commercial acceptability of the handbook and model contract.

The five surveys involved a half-day business meeting to review supplier comments, and a brief plant tour. Participants were told that the purpose of the survey was only for research, and that the RFQ package would not result in a contract. Additionally, participants were offered compensation for their participation; however, each one participated voluntarily. Many firms related that the benchmark pricing data they were provided was well worth the time spent responding to the survey.

The companies surveyed represented a cross-section of the EMS industry, from very small (<\$30 million/year sales) to very large (>\$1 billion/year sales) firms (Figure 2). The firms identified in the ovals were the primary validation par-

ticipants who provided quantitative and qualitative feedback, and accommodated a site visit. The other firms either provided pricing information or handbook and model contract feedback.

The requirements validation survey results were important in that they suggested that many key aspects of the MPCL process were transferable to other commercial firms. Of all 76 requirements in the handbook, 53 (or 70 percent) were acceptable. Validation survey participants said that, while they would add cost, 17 requirements (or 22 percent) were acceptable. Participants considered only six requirements (8 percent) unacceptable.

The program team used the participants' comments in modifying the cost-adding and unacceptable requirements to make

the handbook commercially acceptable. The handbook revision was done with the consensus of the original team that developed the requirements and was reviewed by key survey participants.

What was noteworthy about the survey findings was the lack of consensus among the survey participants about the 17 cost-adding and six unacceptable requirements (Figure 3). One EMS firm not having a design capability considered Notification of Product Phase-out an unacceptable requirement. The firm stated that the designer should know more about the product life than the manufacturer. This firm, however, also indicated that it would perform this function for a customer with which it had a strategic alliance.

This position was common among many suppliers, which indicates that they are just as particular about their customer bases as many customers are about their supplier bases. This finding suggests that the Department of Defense (DoD) may want to revisit its role as a customer in the commercial sector.

The participant lacking a design function also expressed concern about the reliability program requirement, which applies only to firms that do some design work. Three suppliers surveyed were opposed to flowing down requirements to subcontractors, stating that this was not commercial practice. Three firms said Cost of Quality reporting was ob-

FIGURE 3. Handbook Requirements Validation Survey Results

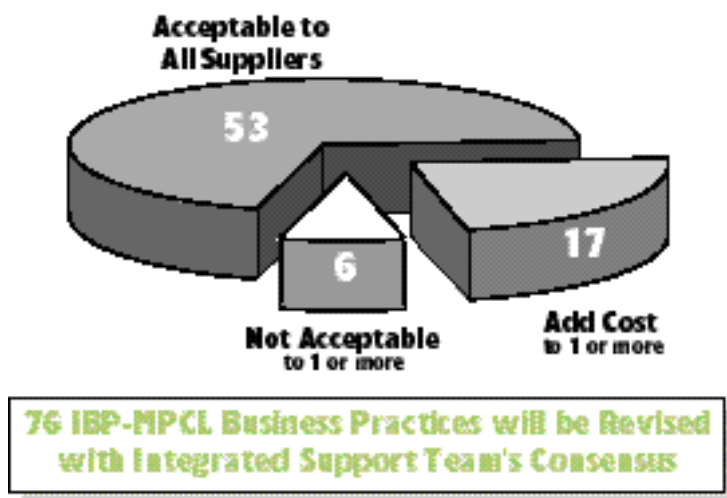
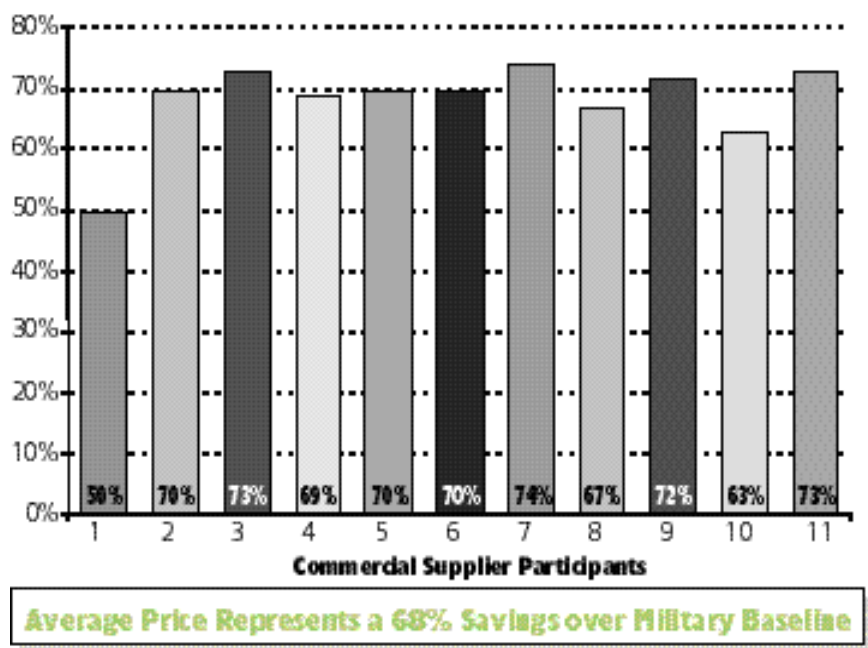


FIGURE 4. Requirements Validation Pricing Validates MPCL Savings Potential



solete, having been replaced by Statistical Process Control (SPC) and real-time process monitoring capabilities.

The Defense Priorities and Allocation System (DPAS) requirement resulted in the largest number of unacceptable responses from the survey participants. EMS firms do not want government involved in setting their priorities and scheduling their factories, which is required by DPAS.

Figure 3 also provides the cost-adding requirements identified by the EMS suppliers. It is important to note that these firms are positioned to accommodate unique customer requirements. Consequently, some would argue that they do not represent a good industry for testing the acceptability of replacements for military requirements.

The consensus feedback from the survey participants was that requirements accommodation occurs in all industries. It is dependent upon the level of customer commitment. That is, firms will do what you want if you commit to a long-term relationship. Many MPCL requirements were acceptable to the participants if they came from a strategic customer. However, for a one-time customer, these requirements were identi-

The consensus feedback from the survey participants was that requirements accommodation occurs in all industries..firms will do what you want if you commit to a long-term relationship.

fied as out of the norm, and therefore viewed as contributors to cost.

The MPCL team did not ask the survey participants to quantify the added cost for each requirement, recognizing that the requirements costs vary from customer to customer, depending on the nature of the supplier-customer relationship. Some firms might perform a requirement for some customers at no additional cost. Military customers with fiscal-year funding constraints could have difficulty dealing with commercial suppliers. Many commercial firms view the lack of multi-year funding associated with most military programs as a key barrier to commercial-military partnerships.

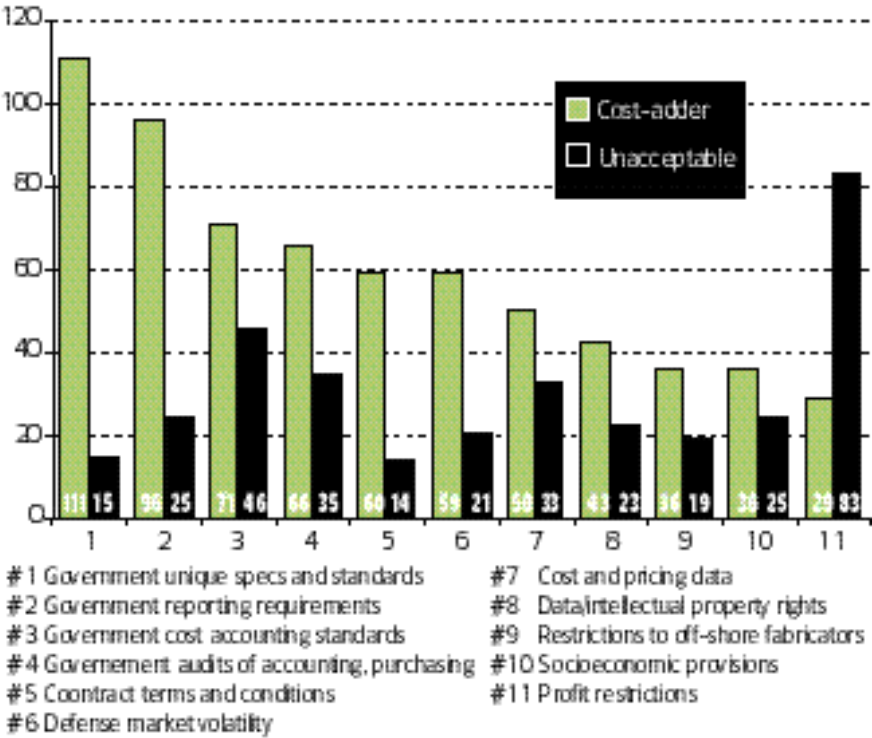
Of particular interest among the cost-adding requirements shown in Figure 3, are the following:

- Customer Verification at Production Verification with Physical Configuration Audit
- Customer Verification at Manufacturing Readiness Review with Functional Configuration Audit
- In-process Inspection Witnessed By Customer
- Final Acceptance Inspection Witnessed by Customer
- Each of these requirements involves the customer in the supplier's production process.

In general, the participants expect these, accommodate them, and only a small percentage of them charge customers extra for them. In other words, it is acceptable commercial practice to accommodate customer audits and inspections. The key distinction here is customer. The commercial world generally does not have the equivalent of the military's large customer structure. The type of audits and inspections are those done by the direct customer (not the Defense Contract Audit Agency, not the Defense Contract Management Command, and not prime contract representatives).

By and large, the fairly tight distribution of pricing that the validation survey respondents provided (Figure 4) indicated the real measure of the transfer-

FIGURE 5. Ranking of Contractual Barriers by Commercial Firms



cial firms prefer to deal with customers who can commit to a long-term relationship.

Interestingly, the general feedback was that the commercial model contract was too favorable to the customer and was largely unacceptable to the suppliers. It is important to note that the MPCL team used typical commercial automotive industry terms and conditions. This indicates that some business practices in commercial contracts are not universally acceptable. To ensure a win-win contractual approach, the MPCL team will revise these practices based on the feedback from the validation participants.

Market Research – Commercial Impact Survey. To get a better sense of the commercial electronics suppliers' understanding of the impact of recent Acquisition Reforms, and to gauge their willingness to bid on military business,

ability and acceptability of the MPCL commercial redesign and streamlined business practices. The average price represents a 68-percent savings over the military baseline cost for the F-22 and RAH-66 versions of these modules. A less-than-20-percent standard deviation from average price attests both to the competitive nature of this market and the transferability of the MPCL commercialization approach.

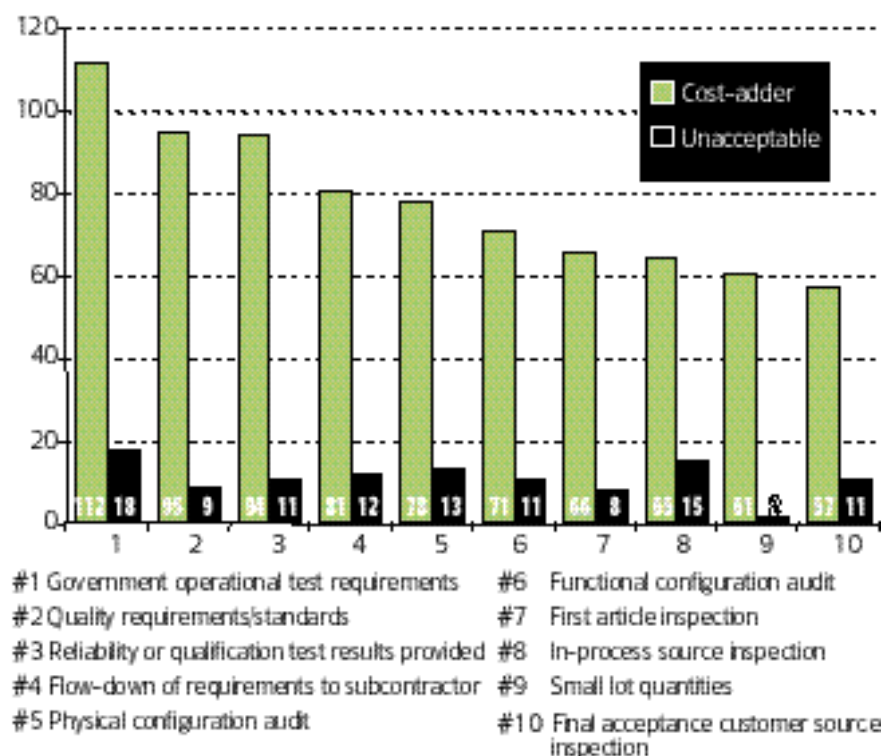
The MPCL validation survey demonstrated that several commercial suppliers could build the redesigned military hardware at a competitive price. The team was initially concerned that the low volumes associated with military products might deter many firms. A few very large firms declined to participate because of the low volume associated with a military product. However, most firms considered the level of customer commitment in total, not merely one business opportunity.

Strategic alliances and partnerships are important in the EMS industry. The commercial sector's emphasis on partnerships runs counter to the standard government practice of funding programs on a fiscal-year basis. Commer-

FIGURE 6. Requirements Survey Feedback — Unacceptable and Cost-Adding Requirements

Specific Requirements Determined Cost-adding by Survey Participants	
Requirements Description	No. of Firms
Operational Requirements Matrix	1
Program Control Plan	1
Customer Verification @ Manufacturing Readiness	
Review w/Functional Configuration Audit	1
Customer Verification @ Production Verification	
w/Physical Configuration Audit	2
Parts Control Program	1
Configuration Status Record	1
As-Built Configuration Report	1
Functional Configuration Audit	1
In-process Inspection Witnessed by Customer	1
Final Acceptance Inspection Witnessed by Customer	1
Control of Non-Conforming Product	1
Customer-Owned Property (Tracking/Reporting)	1
Bar Code Symbology	1
Reporting of Manufacturing Process Controls	2
Control of Process Parameters & Key Characteristics	1
Reliability Program	2
Product Failure Reports	1
Specific Requirements Determined to be Unacceptable by Participants	
Requirements Description	No. of Firms
Notification of Product Phaseout or Process Change	1
Subcontractor Flowdown of Configuration Management	3
Cost of Quality Demonstration or Reporting	3
DPAS Ratings on Purchase Orders	4
Customer Property Recording & Reporting	1
Reliability Program	1

FIGURE 7. Ranking of Technical Barriers by Commercial Firms



the MPCL team conducted a broad-based survey of both the EMS and PWB industries. This research covered issues not addressed in earlier surveys focusing on commercialization barriers, such as the Coopers & Lybrand/TASC study that highlighted areas in which additional Acquisition Reforms may be necessary.

Participating in the survey with TRW were the Institute for Interconnecting and Packaging Electronic Circuits (IPC) and the Massachusetts Institute of Technology (MIT). IPC Director of Market Research, Kimberly Sterling provided access to the member and non-member mailing lists for both the EMS and PWB industries. The MIT Lean Aircraft Initiative (LAI) representative on the team, Dr. Eric Rebentisch, tabulated and analyzed the results of all the completed surveys. Dr. Michael Heberling, formerly a researcher for Anteon Corporation, assisted TRW's Ron McDonald and Mike Nanzer and the other team members with the survey questionnaire content. The survey received an 11-percent (153/1,340) response rate, a good percentage for a cold-survey, according to IPC, which frequently surveys its membership firms.

Prior IPC surveys show that the EMS industry in the United States (a \$14 billion industry in 1996) earned only 2 percent of its CY 1996 sales from government customers, which agrees with the authors' data. Because of data collection limitations, we can't conclude whether that number has changed appreciably in the time period since Congress enacted major Acquisition Reforms.

The survey also sought to establish answers to the following questions:

- Are commercial suppliers aware of the significant government Acquisition Reform changes? The Federal Acquisition Streamlining Act (FASA) and the Federal Acquisition Reform Act (FARA) hold great promise for increased sales to the government by commercial firms.
- If commercial suppliers are aware of reforms, are they even interested in doing government work?
- Do they see the military as a potential strategic customer?
- What are the barriers that prevent more commercial involvement in military programs?

The survey participants indicated that the word is not getting out on Acquisition Reform. While the majority (65 percent) have heard about military specifications and standards cancellation, only 10 percent were aware of the contractual changes (FASA and FARA) offering the best inducement for increased partnering between commercial suppliers and military customers.

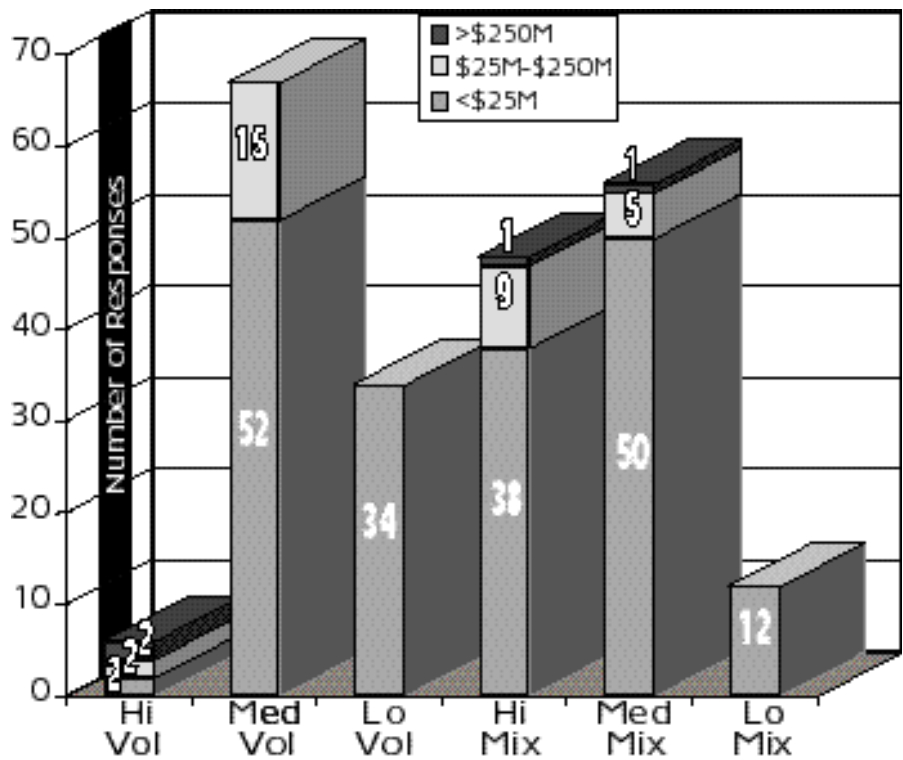
The survey also addressed contractual barriers (Figure 5) to commercial success, such as cost accounting standards (CAS), Truth in Negotiations Act (TINA), and unique reporting requirements. In contrast to other studies focusing on the defense contractors' view of barriers to using commercial suppliers, this survey addresses only commercial firms.

Figure 6 lists cost-adding or unacceptable barriers to commercial access by military customers. The responses indicate that commercial suppliers are adamantly opposed to any profitability restrictions imposed by government contracting regulations. Other practices that the commercial firms considered unacceptable include the imposition of government CAS and the requirement for cost and pricing data. These, of course, all represent significant deviations from general practice in the commercial marketplace.

The findings also indicate that many commercial suppliers still perceive as barriers government requirements, such as CAS and TINA, that have been eliminated by expansion of the commercial item definition. As a result of FASA and FARA, commercial item suppliers should no longer be holding up CAS and TINA as barriers on commercial item contracts.

This situation suggests an education problem exists. We could not determine from this survey whether the problem lies with the commercial supplier who is not seeking this information, or with the military customer who is not implementing the changes brought about by FASA and FARA. But clearly, these ground-breaking changes have not filtered down to the commercial suppliers, who would be among the primary beneficiaries.

FIGURE 8. Commercial EMS and PWB Firm Sales Volume/Mix Data



low-volume, high-mix products are more likely to consider DoD sales "vital" than do larger firms. This suggests, perhaps, that military products don't provide enough of a revenue stream for large, high-volume firms with large capital asset structures. While this may preclude the firms with the greatest scale economies from producing defense products, it does indicate clearly where DoD contract solicitation and education efforts should be directed.

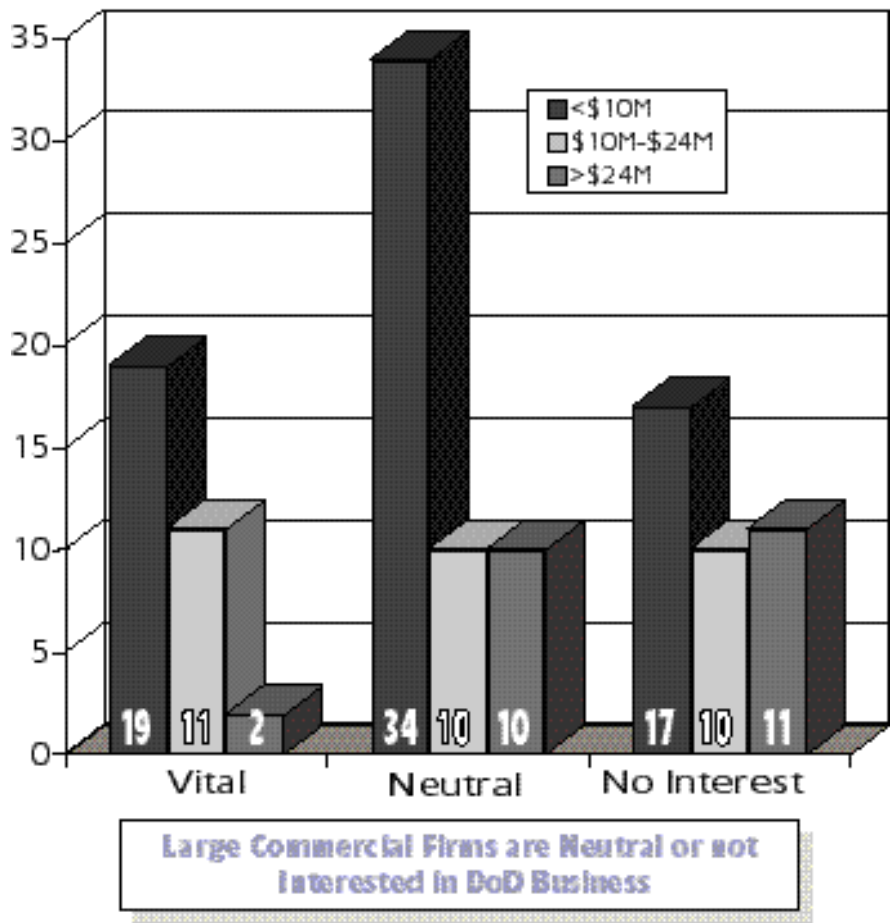
Additionally, the firms most likely to view DoD sales as vital produce a medium to high mix of products in low to medium volume. Given that most DoD customers have a high mix of low-volume products, this finding is important. So the good news is that a commercial market segment is interested or potentially interested in DoD work, and can bring the DoD many advantages in commercial items, specifically lower cost, quicker time to market, and higher quality lev-

The survey also asked participants to rank technical barriers, such as special test, quality and reliability requirements, to doing military contract work (Figure 7). Significantly, fewer suppliers consider these technical requirements unacceptable. Though this may seem like good news, it illustrates that commercial suppliers are now more willing to contract for unique customer (commercial or military) requirements, but at a price. The military customer will have to expect to pay higher prices for imposing any unique specifications, regulations or oversight.

This suggests that some of the beneficial cost reductions that the DoD had hoped to realize through using the commercial supplier base will not occur if the military customer doesn't fully embrace general commercial contracting and oversight practices. Those practices ranked most frequently as unacceptable by the survey respondents include special operational test requirements, in-process source inspection, and physical configuration audits.

The data in Figures 8 and 9 show that smaller firms, and firms specializing in

FIGURE 9. Interest in DoD Business by Firm Size



els. The bad news is that commercial suppliers do not realize that significant changes have taken place that now make doing business with the DoD far more attractive.

The data showed that the biggest EMS and PWB firms were generally not interested in DoD work; small firms showed the greater interest levels. Among the government's many streamlining measures, the area of small business preference was largely unchanged. So a good match would appear to be in place between military customers looking to "go commercial" and small commercial suppliers.

Three Key Findings & One Important Message

The MPCL team's experience with the requirements validation surveys of EMS firms highlights the importance of customer-supplier partnerships. Commercial suppliers are much more likely to cater to those customers who can provide long-term commitments. Military customers wishing to engage in such partnerships must find ways of overcoming fiscal year funding constraints of military programs.

Participating EMS firms in the validation surveys also found that the military-unique MPCL modules are producible. This indicates that the key to gaining access to the commercial supplier base is for military customers to use more commercial parts and practices. The resulting prices bid by the EMS participants validated the significant cost savings potential of the military products from commercial lines concept.

The broad-based survey results can be summarized with three key findings and one important message for military contractors.

First, military customers may be better served by smaller commercial firms because they seem willing to do military work and can offer increased flexibility along with the desired cost savings. They also offer the benefit of assisting the military customers' socioeconomic purchasing objectives.

Second, the commercial supplier base still perceives barriers in place to doing military work. They feel that many of the contractual barriers are unacceptable and therefore deal-breakers, while technical barriers primarily just add cost. Military buyers must recognize this problem of perception as they increasingly attempt to access the commercial market.

Finally, the survey results clearly show that both DoD customers and suppliers can benefit from basic market research. A mixed message on knowledge of Acquisition Reform was evident from the survey results. Apparently the word is out on knowledge of the cancellation of large numbers of military specifications and standards, due largely, we think, to the press coverage for former Defense Secretary Perry's initiative in 1994. How-

ever, the streamlining measures that stand to offer commercial suppliers the greatest access to military work (FASA and FARA) are largely unknown to these suppliers.

Is the military buyer at fault for failing to educate the supplier base, failing to implement such FASA and FARA measures, and so forth? Or, are suppliers at fault for failing to learn more about their changing customer environment? A key lesson to be learned from this survey is that both DoD customers and suppliers can benefit from basic market research. The partnerships necessary for the future success of commercial item acquisitions by DoD customers depend on both parties understanding the new rules of the game.

BETTER LATE THAN NEVER...

WHEN CLASS 97-2 GRADUATED FROM THE ADVANCED PROGRAM MANAGEMENT COURSE, DEFENSE SYSTEMS MANAGEMENT COLLEGE (DSMC) IN MID-1997, THEY FOLLOWED THE TIME-HONORED TRADITION OF LEAVING BEHIND A MEMENTO OF THEIR CLASS. IT RECENTLY ARRIVED — ONE FULL YEAR LATER. THE BEAUTIFUL, PERMANENTLY MOUNTED SUNDIAL IS A WELCOME ADDITION TO THE COLLEGE'S LANDSCAPE AND NOW GRACES THE LAWN OF THE MAIN CAMPUS, FORT BELVOIR, VA.



RETURNING TO THE COLLEGE IN JUNE 1998 FOR THE PRESENTATION WERE SEVERAL GRADUATES OF APMC 97-2. PICTURED FROM LEFT: GEORGE MERCHANT, ASSOCIATE DIRECTOR, APMC; AIR FORCE MAJ. NANCY COMBS; JOHN ACTON, MARINE CORPS CIVILIAN; DR. MARY-JO HALL, PROFESSOR OF MANAGERIAL DEVELOPMENT, DSMC; ARMY MAJ. BOB HEATHCOCK; NAVY CAPT. SCOTT GRAVES; KATHY MILLS, NAVY CIVILIAN; ANDREW SCHUTT, ARMY CIVILIAN; AIR FORCE LT. COL. DAVE BACHMAN; NAVY CIVILIAN SUSAN LINN; ARMY LT. COL. MIKE BONHEIM; AIR FORCE MAJ. ANITA LATIN.



DoD Value Engineering Achievement Awards for 1998 Presented

The 1998 Department of Defense Value Engineering Achievement Awards were presented today during a ceremony held at the Pentagon. DoD's Director of Test, Systems Engineering and Evaluation, Patricia A. Sanders made the presentations.

Value engineering is a systematic functional analysis leading to actions or recommendations to improve the value of systems, equipment, facilities, services, and supplies. The objectives are to improve quality and to reduce cost. The awards are intended to recognize significant achievements in value engineering during the past fiscal year and to further the use of value engineering by DoD personnel and its contractors.

During the last fiscal year, 4,168 in-house value engineering proposals were accepted with reported savings of \$661 million. Another 221 contractor-initiated value engineering change proposals were accepted with additional savings of \$45 million.

The value engineering award program is a highly visible acknowledgment of exemplary achievements and encourages additional projects to improve in-house and contractor productivity. An award winner from each DoD component was eligible for selection in the following seven categories: (1) program management, (2) individual/team, (3) procurement/contract administration, (4) value engineering professional, (5) field command, (6) installation, and (7) contractor. Additional "special" awards were given to recognize innovative applications or approaches that expanded the traditional scope of value engineering use.

The 1998 Value Engineering Achievement Awardees are:

ARMY	
Program Management Individual/Team	Multiple Launch Rocket System Project Office Rosemary Lomba and Carole Winterhalter; U.S. Army Soldier Systems Command
Professional	John Vogel; U.S. Army Engineer District, Baltimore
Procurement/Contract Administration	Sheri Patton, Bryce Atkinson, Tommy Snurr, and Julie Stammen; Defense Contract Management Command General Dynamics Lima
Field Command	U.S. Army Soldier Systems Command
Installation	Anniston Army Depot
Contractor	Hughes Aircraft Co.
Special	Timothy Karcher; U.S. Army Industrial Operations Command
NAVY	
Program Management	Advanced Amphibious Assault Vehicle Auxillary, Suspension, Automotive Drive Train Integrated Product Teams
Individual/Team	Combat Systems Consolidation Business Strategy for AEGIS Ships Team

Procurement/Contract Administration	Resident Officer in Charge of Construction, Bancroft Hall
Installation	Naval Aviation Depot, Cherry Point
Contractor	Rogers, Lovelock and Fritz Inc.
Special	New Attack Submarine Non-Propulsion Electronics System Integrated Product Team
Special Assistant	William McAninch, Office of the Assistant Secretary of the Navy (Research, Development & Acquisition); Henry Ball, Boeing Defense and Space Group; and Joseph Lambert, SAVE International
AIR FORCE	
Program Management	NAVSTAR Global Positioning System Avionics Integrated Product Team
Individual/Team	Henry Duhamel; Electronic Systems Center
Procurement/Contract Administration	Lee Anderson and Martin Kradlak; Air-to-Air Joint Systems Program Office
DEFENSE LOGISTICS AGENCY	
Program Management	Compact Disc Recordable Project Team; Defense Supply Center Columbus
Individual/Team	Maryrose Burns; Defense Personnel Support Center
Professional	Joshua Perry; Defense Supply Center Richmond
Procurement/Contract Administration	Annette Jiles; Defense Contract Management Command – Detroit
Field Command	Defense Industrial Supply Center
Contractor	Jack Young Associates Inc.
Special	Hand Emplaced Minefield Marking System Project Team; Defense Supply Center Richmond
BALLISTIC MISSILE DEFENSE ORGANIZATION	
Program Management	PATRIOT/PAC-3 Project Management Office
Individual/Team	Joel Ellis; Theater High Altitude Area Defense Project Management Office
Professional	Nancy Sims; U.S. Army Aviation and Missile Command
DEFENSE FINANCE & ACCOUNTING SERVICE	
Individual/Team	Human Resources Directorate
NATIONAL SECURITY AGENCY	
Individual/Team	James Cornett; National Security Agency and Brett Salkeld; BetzDearborn Water Management Group

Editor's Note: This information is in the public domain at <http://www.defenselink.mil/news> on the World Wide Web.

Drawing the Line

Three Case Studies in Procurement Ethics

FRANK KENDALL

All business relationships, perhaps all human relationships, if they are to succeed must be built on some level of trust. Throughout my careers in government and the defense industry, the subjects of ethics and trust, as they relate to defense procurement, have surfaced repeatedly, but never with more relevance than today. Competitive pressures on industry, and budget pressures on the Defense Department, are stronger now than ever. In this climate, the temptation to cut corners can be intense. The three incidents described in this article all occurred recently, and in just this climate.

When I left government service to join industry in 1994 after a career in the military and in the civil service, I was unsure about the ethical environment I would enter. My friends include many military officers and government civilians who made the transition to industry successfully. They assured me that despite the pressure that the profit motive places on people in industry, the ethical climate in industry was not an issue. Generally, they were right. This article is about ethics violations committed by government employees. In fact, they were all committed by military officers.

No Gain May Not Mean No Pain

The three incidents all have another important point in common. In each case, the individual involved probably believed that he or she acted in the best interests of the government and their military service. There is no direct evidence that suggests any personal gain was involved in

any of these incidents. This common thread makes these three experiences especially worthy of our consideration.

Although the incidents are factual, pseudonyms will be used and details altered sufficient to avoid any embarrassment. One individual was relieved and retired early as a result of an infraction. In another case, the investigation was mishandled, and the individual has retired without any sanction. In the last case, no wrongdoing was reported, and it isn't even clear that there was, in fact, an actionable ethics violation. Readers are invited to form their own opinions, not so much about these incidents or the people involved, but about how they should or would act in similar circumstances, and where, in general, the line between ethical and unethical conduct should be drawn.

The Letter Better Unseen

The first incident is very straightforward and involves an officer passing a document marked "Competition Sensitive" by one contractor, to another competing contractor.

During the winter of 1996, I was with another executive from my firm aboard a company jet leaving National Airport. The company's proposal manager for a key competitive program, who had been to the Pentagon, boarded the aircraft with a manila envelope given to him by one of our Washington employees. That employee had received it from the field grade officer who was the Service's program manager. The program was in competition, although only a draft Request for

Proposal (RFP) had been issued so far. Our employee had been told that the document was "something you need to see."

At that time, we were engaged in a fierce debate with the Department of Defense (DoD) over the terms of the RFP. The argument was about the legal and policy implications of some factors that the government included in the draft RFP and intended to use in the proposal evaluation. If the government proceeded as planned, we believed we would be at a significant competitive disadvantage in a program of enormous importance to the company. We believed the government's plan was a matter of poor policy and possibly inconsistent with procurement law.

Apparently, the government program manager agreed with us. The document marked "Competition Sensitive" that he provided us was a legal analysis, prepared by our competitor, supporting retaining the proposed language in the draft RFP. The program manager's intent [and I'm speculating here] was to give us an opportunity to respond to our competitor's position.

Although we fumbled around more than we should have, we as industry employees acted appropriately. At the time of the incident, none of us on the plane was certain of our legal obligation. A government employee had given us the document. Despite the markings on the envelope, we reasoned that perhaps the program manager simply made the determination that the material in the en-

Kendall, currently a private consultant, was Director of Tactical Warfare Programs in the Office of the Under Secretary of Defense (Acquisition & Technology), from 1989 to 1994. From 1994 to 1996, he held executive positions in the defense industry. Kendall is a graduate of the U.S. Military Academy and holds advanced degrees in engineering and business administration.

velope really wasn't "protected" because of its content. Since we hadn't solicited the document or provided anything in return, what was our obligation? The answer [and I'm embarrassed to admit my own ignorance in this regard] is that under procurement law, it's a felony to pass or receive such a document. The law is simple and clear. The circumstances are not relevant. *It is a felony.*

The next day, our proposal manager passed the document to our legal and contracting people, and they promptly returned it to the government. An investigation ensued, and the officer involved was relieved of his position as program manager and retired from military service. As for the industry executives, our proposal manager, and the other executive on the plane with me, we were removed from the program as a precautionary measure while the investigation was conducted.

I had declined to look at or touch the document until I understood how the rules applied to this very unusual situation. The other two people had skimmed it to determine its contents. As a result, I was merely chewed out by my boss, the Chief Executive Officer of the company [and a person who knows how to do that sort of thing], because I did not stop the others from looking at the contents of the envelope. We were all culpable because we did not appreciate the seriousness of receiving or passing such information, *under any circumstances.*

I believe the officer involved in this incident meant well, but he used poor judgment, and committed what could have been classified a felony. I doubt that he understood the severity of what he had done, or he wouldn't have taken the risk. In my view, his big mistake was to put his own views about what was fair and reasonable above the rules of the acquisition process. If he believed the markings were inappropriate, and that we had a right to respond to the document, then

The very idea of coercing a contractor into giving up the right to fair resolution of a protest based on its merits, in return for a more favorable set of source selection rules on a separate competitive procurement was, in our minds, totally unethical and an abuse of government authority.



he could have asked his legal and contracting support staffs to review it. Instead, he chose to act on his own.

Politics and Practicalities

The second incident is less straightforward. It happened in the same timeframe, and it involves a flag officer

attempting to coerce a contractor into withdrawing a protest of an award to a competitor. Let us call him General Jones.

General Jones visited our company, where he received a day of briefings on various programs. After formal presentations, a smaller meeting was held, at which only seven or eight people were present. Three of us were from the company, and four or five were from the government. General Jones was the ranking military service representative. He was accompanied by another flag officer, General Smith, whose story will come later. This meeting was a semi-private session to discuss two sensitive issues.

Remember the draft RFP from the first incident? That was one of the issues on the table. We were fighting hard to get the government to change the rules of the source selection so our competitor wouldn't have what we perceived as an unfair advantage. Again, this was an extremely important program to the company, with a multi-billion-dollar value.

The second issue was a separate competitive procurement that had already been competed, which we had lost. It involved the same competitor involved in the RFP issue. We had taken the extraordinary step [for us], of protesting the loss; the Government Accounting Office (GAO) had found in our favor on the protest and had returned the protest case to the military service for resolution.

To us, resolution meant giving us the contract – or at least a major piece of it. The government had the option to recompet, but work had been ongoing for several months already. This was a small program in terms of revenue, but it had "sentimental" value to my company because we had been the sole source on this program for a decade before we lost the competition. The government, for its part, wanted us to withdraw the protest because it didn't want the program disrupted for practical and political reasons.

What did General Jones do? One can describe his actions in various ways. According to a memorandum he later provided to the investigator, he offered us a deal. It would be less kind, but perhaps more accurate, to say he tried to bribe or blackmail us. His deal was that if we withdrew our protest on the small program, then he was "confident" the language we objected to in the draft RFP for the multi-billion-dollar program would be removed. His actual words were, "Which of these two issues is more important to you? Don't you understand that there is a linkage between these two decisions? Which of them is more important to you?"

As company representatives, we did nothing wrong at the meeting. We all simply ignored the offer and continued to present our case on both issues, based on the merits. After General Jones left, in some apparent frustration, we met privately to discuss the meeting. It would be a serious understatement to say we were offended by the offer from General Jones. We had a right to have both of these issues decided on their merits.

The very idea of coercing a contractor into giving up the right to fair resolution of a protest based on its merits, in return for a more favorable set of source selection rules on a separate competitive procurement was, in our minds, totally unethical and an abuse of government authority. I wondered at the time how our competitor would react if he knew the government was offering us this deal. [Since it was the same competitor in both cases, I expect their priorities would have been different from ours!]

When we were alone, I asked one of the other company executives if the general's conduct had been illegal as well as unethical; he told me it was. As a result, I took the extraordinary step of reporting the incident anonymously to the DoD ethics hot line. This was not a particularly loyal act as an employee. In fact, one of my concerns was the potential for retaliation against my company by the military service. I didn't think this was likely, and I hope I wasn't naive in

that regard. There had been a number of people present, including a representative of another military service, so I anticipated some ambiguity about the source of the report.

I accepted the risks because I felt it was my duty as a citizen and a former acquisition official to make the report. Frankly, I was also angry that a prominent flag officer, from the acquisition system that I had worked for years to strengthen, could have abused his authority this way.

An investigation was conducted some months later. I was aware it was ongoing, but I was never contacted by the investigating officer. About a year later, I requested the investigation report under the Freedom of Information Act. I was curious about the result and why I hadn't been contacted. As I mentioned, the investigation was [in my view] mishandled. The report confirmed this.

Besides General Jones, the investigator talked to only three of the people present. He also wrongly assumed, or was led to misunderstand or, in fact, simply misunderstood, the nature of the complaint. He was looking for evidence that General Jones had promised us the actual contract for the large program as opposed to improving our competitive position by altering the source selection rules in our favor. The report indicates that General Jones denied making us the offer of an actual contract, but admitted making us the offer I described. The reported language General Jones used is instructive. He is reported to have said that "the intent was to obtain the best business deal for the government and that [his civilian supervisor] was aware of the objectives of the visit to [my company] and concurred with the course of action."

In Whose Best Interests?

Is it ever in the best interests of the government to coerce a contractor into withdrawing a protest by threatening to hurt the company's chances on another competition if the protest is not withdrawn? An act of this type destroys trust in the acquisition process and thereby en-

courages unethical conduct by industry. Industry is naturally suspicious of the government's closely held source selection process anyway, and this sort of occurrence tends to confirm our worst fears. Executives in my company were sincerely afraid of retaliation by the Service because the incident was reported.

"Legal" Depends On Who You Ask

Is the situation with General Jones technically illegal? I discussed this question with government contracting officials, former and current officials in the DoD Inspector General's Office, and former members of the DoD General Counsel's staff. No one knew the answer. All agreed that this type of conduct is highly unethical, but surprisingly it took several attempts before someone researched the question of its legality and obtained an authoritative answer. My colleague in the company seems to have been mistaken. *It was not illegal conduct.*

General Jones retired and went to work for our competitor as a senior executive. The investigator's report found my complaint, which the investigator understood to be that we had been offered an actual contract in return for withdrawing our protest, to have been "unsubstantiated."

A Grayer Shade of Unethical

This brings us to the third incident and General Smith. This is the most "gray" of the three cases. It involves the possible misleading of the investigator in the case of General Jones.

General Smith was interviewed under oath during the investigation into General Jones' conduct. He apparently did not explain what really happened in the meeting to a seemingly confused investigator, and may have actually contributed to the confusion.

He is reported to have said that General Jones did not offer the contractor a contract, or part of a contract, in return for withdrawing the protest. This is true. He reported that he did not hear any linkage such as "If you do this for me, then I will give you business here." Again, this

is true if the specific example is read narrowly.

He did state, however, that at some point in the meeting the RFP issue became a "springboard" to settle the protest issue on the other program. It is not clear what he meant by a "springboard" or why a "springboard" falls short of "linkage." Apparently, the investigator did not challenge the meaning behind this choice of words. One has to wonder about General Smith's motivation in choosing such a nebulous term.

General Smith's statements, as summarized in the investigation report, are not necessarily lies. Neither do they seem to be the truth. Did General Smith have an ethical obligation to correct any misunderstanding in the mind of the investigator or not? If he understood the investigator's confusion, it seems to me that he did have such an obligation.

It is impossible to know what was in General Smith's mind. At worst, he was trying to defend his superior and fellow flag officer, and avoid a scandal for the military service. At best, he simply didn't remember the details of the meeting or recognize the inappropriateness of General Jones' offer of a deal. My reaction, however, is that in the future it will be very difficult for me, as a contractor, to place much trust in General Smith. General Smith remains on active duty.

Lessons to be Learned

What should government acquisition officials take away from all this? Three things come immediately to mind.

First, we all need to be careful about understanding the legal and ethical aspects of government procurement. Most of us think we're ethical people and if we act according to our principles, we won't have any problems. As the first two incidents described indicate, the rules (and the legal severity of breaking the rules) aren't always just a matter of common sense. It pays to carefully read those guidelines we're periodically required to review — not just skim over them. If we're



You, as government employees, represent the full power and authority of the United States, and the balance of power is all on your side. We [defense industry] can't survive without you as our customer. Abusing your power and authority, regardless of the immediate goal, simply demonstrates that the government can't be trusted.

not sure about the rules, people are available who know or will find the answers for us *before* we make a mistake.

Second, before breaking or bending the "rules" to achieve a near-term goal, it's important to be aware that there may be consequences beyond the expedencies of the moment. It does not take too many events like those described in this article to destroy industry's faith in the integrity of the acquisition system. This includes such fundamentals as full and open competition, the expectation that sensitive documents will be protected, and the right of a contractor to have issues involving separate procurements decided individually on their merits. These principles are the basis of the entire defense acquisition system.

Third, people representing the government to industry need to be keenly aware of how industry perceives them. Working in industry for the last few years has opened my own eyes on this subject. Despite the fact that we in industry try to build close, cordial relationships, we always see you as representatives of the government. You, as government employees, represent the full power and authority of the United States, and the balance of power is all on your side. We [defense industry] can't survive without you as our customer. Abusing your power and authority, regardless of the immediate goal, simply demonstrates that the government can't be trusted.

We in industry didn't see these individuals as helpful or reasonable. We saw them as something else entirely.



New Digital Publications Standard Paves Way for Integrated Future

ALEXANDRIA, Va. (ARNEWS, May 23, 1997) — "A feeling of victory is in the air at the U.S. Army Publishing Agency," said John Czekner, chief of Publishing Management Division, U.S. Army Publishing Agency (USAPA), Alexandria, Va. Their innovative and far-reaching Digital Publications Development (DPD) Military Standard was recently approved for the Army, with optional use available for the Department of Defense.

"We developed the highly visible DPD Program and published MIL-STD-2361(SC) to streamline the development, acquisition, and management of publishing information and to reduce costs and errors," said Hope Robinson, the DPD Program Manager. The Army's vision of an integrated environment for electronic, digital publications required different tools and some standardization. This recently published product gives new insights and methods for automatic storage, retrieval, processing, reuse, and sharing of publications information from different sources. MIL-STD-2361 also implements the Army Standard Generalized Markup Language (SGML) Registry and Library, which transforms the sharing and reusing of information from vision to reality.

MIL-STD-2361 resulted from several years of hard work, persistence, and testing and validation at government and industry sites in the United States. This recently distributed standard establishes the SGML requirements for Army digital publications and offers tailored, custom-made work packages. The separation of SGML requirements by publication types means that developers, trainers, and users will find specified sections for administrative, training and doctrinal, and technical and equipment publications. "USAPA is trying to ride the wave of the future, but we must accept progress in ripples and phases," said Czekner, a 24-year veteran in publishing. This initial publication of the standard has SGML requirements for Army technical manuals (TMs) developed under MIL-STD-40051 (TM Preparation); it includes electronic technical manuals (ETMs), which are paper-based, and interactive electronic technical manuals (IETMs).

"The Army and USAPA are already working on future versions of the standard that will include SGML requirements for Army administrative, and training and doctrinal publications," Robinson added.

The DPD Program has supported the Bradley Fighting Vehicle and has been the basis of the publications management part of the Combat Mobility System and the Abrams (M1A2/3) Main Battle Tank. Without the DPD Program and standard, the Bradley Fighting Vehicle Project Manager would have to publish over 44,000 pages of TM data over the next five years using conventional, camera-ready copy at significantly higher costs.

This standard is based on application of SGML and its tools: Document Type Definitions (DTDs) and Formatting Output Specification Instances (FOSIs). DTDs prescribe the publications content

and structure according to this standard. Developers and users can identify specific portions of the TM such as operating instructions, maintenance, or troubleshooting procedures. Since DTDs will be modular, the developer can select the maintenance module and develop that information separate from troubleshooting. "Time and accuracy are vital for soldiers in the field and save lives. He or she can isolate and access specific information or instructions for maintenance, repairs, or other work," Robinson said. The FOSI — with the DTD — establishes the style and format of the publication. FOSIs can adapt the same data to a paper presentation or to a computer screen display. Specific DTDs will be available later by request through the World Wide Web (<http://www-usappc.hoffman.army.mil>) and the USAPA Bulletin Board or by mail.

USAPA's MIL-STD-2361 is the first major step by any DoD publications organization to comply with the Joint Computer-Aided Acquisition and Logistics Support (JCALS) system. JCALS is the standard-based DoD information management initiative that supports development, management, and exchange of technical information using digital technology. Developers of USAPA's standard focused on compliance with DoD, Army, and international policy requirements.

Col. Michael Mayer-Kielmann, USAPA commander, said, "We are mobilized to digitize. We are one step closer to a soldier anywhere in the world by being able to use some type of computer system to instantly access specific, accurate, current, and trusted information." However, he cautioned, "A paperless military — if it is possible — is still a long way into the future."

Editor's Note: This information, originally published as a U.S. Army Publishing Agency News Release, is in the public domain at <http://www.dtic.mil/armylink/news> on the Internet.

Lockheed Martin Forges Relationships with Best-Value Suppliers

Uncle Sam Stands to Reap, Substantial, Auditable Savings

MONTY W. DICKINSON

Between 1985 and 1994, the Department of Defense (DoD) procurement budget fell by almost 65 percent. In response to this dramatic decline, DoD began a thrust toward commercial practices and reduced oversight. Former Secretary of Defense William J. Perry's implementation in December 1995 of the Single Process Initiative (SPI) as a preferred DoD business practice, was one of the major results. Lockheed Martin Aeronautics Sector, in search of ways to take advantage of SPI and reduce costs to remain competitive, undertook an in-depth study of operational costs to determine the best opportunities for cost savings.

Logical First Step — Consolidate Aeronautics Sector Procurement

A major component of our study was determining the viability of consolidating the procurement functions of the Aero-

nautics Sector. Toward that end, we looked at Lockheed Martin Tactical Aircraft Systems in Fort Worth, Texas; Aeronautical Systems in Marietta, Ga.; and the Skunk Works in Palm-dale, Calif.

The results of our study clearly showed that material costs represented approximately 47 percent of total costs, gross inventory constituted 72 percent of total assets (before progress payments), material personnel accounted for 4.5 percent of total headcount expenditures, and 2 percent of suppliers represented 75 percent of total material cost. As a result, material

JOINT STRIKE

FIGHTER

Image courtesy The Boeing Company



F-22 RAPTOR

Photo courtesy The Boeing Company

FIGURE 1. Key Areas of Opportunity



emerged as a primary opportunity for cost reduction (Figure 1).

In late 1995, Lockheed Martin decided to consolidate the various Procurement organizations within the Sector that procures materials for the F-16, F-22, C-130, Joint Strike Fighter (JSF), F-117, F-2, X-33 Single Stage-to-Orbit (SSTO), Reusable Launch Vehicle (RLV), and the Joint Air-to-Surface Standoff Missile (JASSM). Influencing this decision was the fact that significant merger and acquisition activity had created many fragmented and overlapping buying organizations in multiple locations (Figures 2 and 3).

Dickinson is Vice President, Lockheed Martin, Aeronautics Material Management Center, Fort Worth, Texas.



Strategies

One of AMMC's key strategies is to aggregate requirements from all Aeronautics sites and consolidate those procurements with best-value suppliers who consistently demonstrate high lev-

COMBAT TALON I C-130 HERCULES
DoD photo



F-16C FALCON
DoD photo



JOINT AIR-TO-SURFACE STANDOFF MISSILE
(JASSM)

Image courtesy Lockheed Martin Electronics & Missiles



LOCKHEED F-117A STEALTH FIGHTER

Photo courtesy Lockheed Martin Electronics & Missiles

From DoD's perspective, the primary advantage of Lockheed Martin's decision to consolidate is cost savings (Figure 4) derived from aggregating requirements for multiple programs and sites, resulting in volume-based price reductions. Additionally, consolidation significantly reduces administrative duplication, a problem typically inherent to many separate companies individually buying similar material. The resulting organization – the Aeronautics Material Management Center (AMMC) – is implementing a number of innovative procurement practices, some developed in concert with the suppliers.

els of performance. A second major strategy is to forge long-term contractual relationships with these suppliers. The suppliers benefit from a significantly increased business base and from long-term contracts. These two strategies have been used successfully for a wide-range of products, ranging from office supplies to weapon system hardware.

One tangible example of the application of these strategies is AMMC's Integrated Supply concept, which reduces costs by

streamlining the materials management process. Besides allowing AMMC to forge long-term contractual relationships with suppliers, the concept also generates cost reductions in several areas:

- Supplier Base Reduction
- Elimination of Excess Inventories and Inventory Investment
- Standardization of Parts and Products
- Total Administrative Cost Reduction

In effect, AMMC receives the benefit of product cost reductions because the major supplier incorporates requirements into its overall business base for volume pricing.

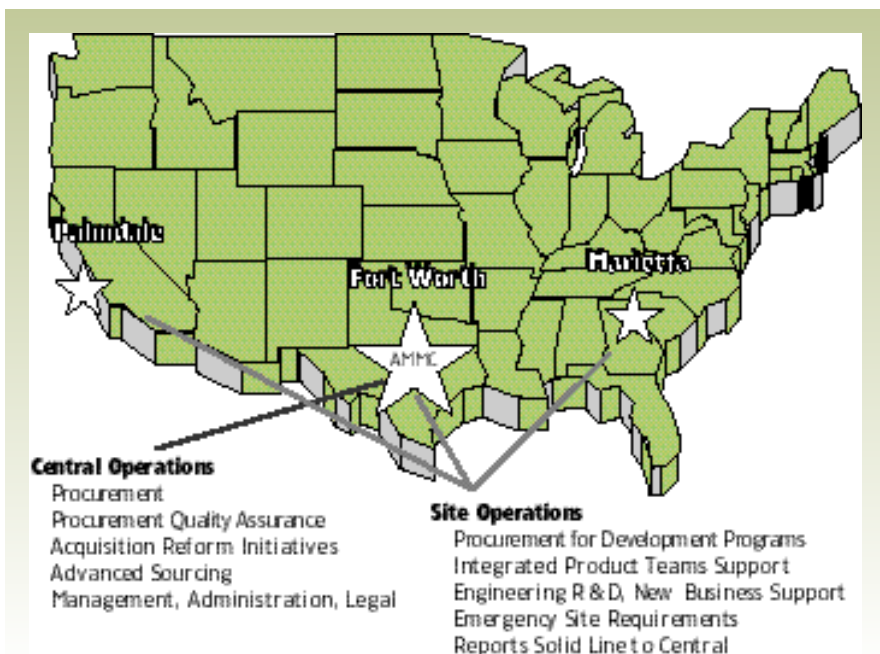
A prime example of AMMC's success with the Integrated Supply concept, is the recent five-year, multi-million dollar award to W. W. Grainger, Inc. Grainger, a leading provider of operating supplies, specializes in factory support and Maintenance, Repair, and Overhaul (MRO) commodities to various sites within the Aeronautics sector.

The agreement resulted in a mutually beneficial, long-term partnership, reducing costs, improving quality, and providing a larger business base for the supplier. Total booked and committed savings to date are several million dollars. Because of its success, we expanded the agreement to include other Lockheed Martin Sectors, and discussions are underway to make it applicable to all Lockheed Martin companies, further enhancing savings opportunities.

Group Purchasing Agreements

AMMC also participates heavily in the Group Purchasing Agreement (GPA) process, which allows Lockheed Martin companies with disparate product lines to combine purchasing requirements for common commodities into one large negotiation, leveraging our combined dollar volume with fewer suppliers for lower pricing. Enabling the up-front

FIGURE 2. AMMC Locations and Operations



establishment of contract terms and conditions, the GPA process also permits future acquisitions of GPA items as a simplified procurement. This not only achieves lower pricing, but lowers administrative involvement by AMMC personnel, further reducing costs.

These consolidated requirements add significant volume to the GPA commodity negotiations for fasteners, connectors, relays, miscellaneous hardware, and wire/cable. A number of other commodity negotiations in which AMMC anticipates future participation include miscellaneous electronics piece parts and fasteners.

Corporate Purchasing Agreements

Still another initiative, Corporate Purchasing Agreements, entails gathering requirements from across Lockheed Martin Corporation and aggregating total requirements to leverage favorable pricing. Using this approach, we expect software savings for the Corporation to produce savings in the tens of millions of dollars over the next three years. Through leveraged negotiations by various lead companies throughout Lockheed Martin, we also achieved significant savings on engineering workstations and personal computers.

Other savings projects at Lockheed Martin resulted in aggregated requirements for sealants, paints, and adhesives. In essence, Lockheed Martin consolidates requirements for these commodities for a single competition or negotiation, then achieves savings by leveraging the manufacturer's total business with Lockheed Martin for these commodities.

Almost any commodity lends itself to aggregating requirements. This practice is not only good for Lockheed Martin,

but also for the suppliers. An added benefit — these agreements can also be made available to our suppliers, so they can then procure material for our programs at our corporate discounted rate, ultimately lowering costs for everyone.

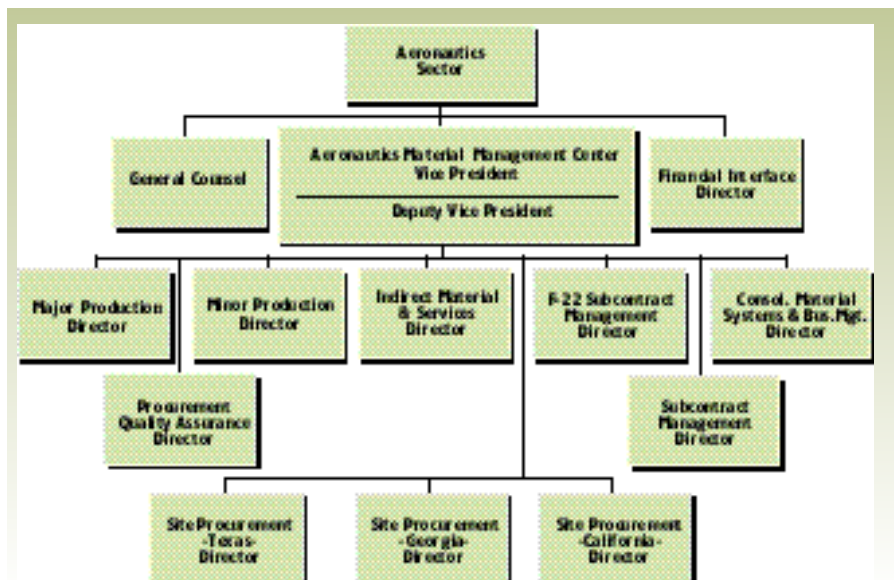
Process Reviews

To enable suppliers to become more efficient, the government and Lockheed Martin jointly review administrative processes and flow-down requirements that are non-value added. This requirements reduction process highlighted the need for a number of process changes, which yielded efficiencies and savings that benefited our suppliers and customers.

The next step in this process is the Supplier Product and Process Improvement (SPPI) program. A cross-functional team of AMMC, engineering, and manufacturing personnel, the program team works in concert with suppliers to eliminate waste and streamline supplier processes from design through production. And finally, SPPI provides a major opportunity to employ the principles of SPI as AMMC reviews its requirements to determine which ones can be reduced or eliminated.

Seventeen companies are currently participating, with 14 additional companies expected to participate in 1998.

FIGURE 3. AMMC Organization



Estimated, potential savings identified to date total over \$215 million.

Modified Requirements Contracts

AMMC uses multi-year procurements called Modified Requirements Contracts to form long-term relationships with suppliers. Since contracting can be done once during the contracted period instead of annually or more often, AMMC and the supplier benefit from lower overall pricing and significantly reduced administration.

As part of the partnership, AMMC assures the supplier that if new business is generated, that supplier will receive the business, as long as they continue to meet agreed-to cost, quality, and schedule performance.

These contracts can range up to five years in length, an arrangement that allows for schedule flexibility, minimal estimating and proposal activity, and allows the supplier to do long-term planning, including facilities, manpower, and capital investments. It also allows suppliers to buy material in larger quantities, because they receive a longer horizon of firm business.

Further, Lockheed Martin found that aggregating requirements for other material, such as wiring harnesses, also showed enormous savings, along with high-quality and on-time delivery. As a result, we negotiated contracts that now apply corporate-wide.

Systems

System improvements such as Electronic Commerce are also producing significant reductions in cycle times, and resulting in manpower and paperwork cost savings by electronically transmitting business information and technical data. The benefits of using Electronic Commerce tools and Internet-based integrated enterprise applications are readily apparent to suppliers as well as Lockheed Martin.

When fully implemented next year, a common purchasing system will help make these electronic applications con-

sistent across the Aeronautics sites. With common processes, procedures and systems, and electronic communication with the supplier base, AMMC is helping Lockheed Martin achieve its goal of operating as a virtual organization.

Acquisition Reform

DoD and Lockheed Martin have made significant progress in implementing SPI since the inception of AMMC. The AMMC SPI team was first established in 1996. By March 1997, the government approved the Lockheed Martin Tactical Aircraft Systems subcontractor SPI enabling provision, and the Lockheed Martin Aeronautical Systems provision in April 1997. Since that time, 46 suppliers submitted proposals, and 17 have already received disposition. Also, across AMMC all applicable Federal Acquisition Streamlining Act (FASA) provisions allowing commercial-type quality requirements, and contract terms and conditions were flowed down to all suppliers.

Results

Lockheed Martin Corporation established a cost savings goal for AMMC of \$410 million by 1999. By using the consolidation strategies discussed in this article, they estimate annual recurring savings beyond 1999 of \$100 million. Through 2nd Qtr, CY 1998, total booked and committed savings totaled \$420 million, thus accomplishing the four-year

goal in two and one-half years. Published quarterly, Lockheed Martin Corporate internal auditors and the Finance organization of AMMC audit and validate these savings.

Additional savings projects are in the works or under consideration to achieve the four-year savings goal. AMMC identified an additional 117 savings projects, with an estimated savings value of \$92 million, and effort continues to increase the number of candidate projects.

In addition to savings, since January 1996 AMMC has enjoyed significant improvement in a number of other key metric indicators:

- Material Shortages (reduced by 48 percent)
- Span Times (2-percent reduction in F-16 and C-130 lead times, as industry lead times increased by 16 percent)
- Inventory (increased turns 36 percent)
- Supplier Base (reduced by 36 percent)
- Supplier Quality (product yield increased to 99.9 percent)

The bottom line, as always, is savings. Through mutually beneficial, long-term relationships between AMMC and its best-value suppliers, the government is seeing substantial, auditable savings, and reaping the benefit of significant improvements in quality, inventory, and cycle times.

FIGURE 4. Progress (Savings) to Date

